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- "491" p. 124 Fiber Zibethicus. ♂ (ad?).
- "492" p. 124 Lepus sylvaticus arizonae ♀ juv very young.
- "501" p. 128. Tamias harrisi. ♀ juv.
- "3076" p. 137 Common House mouse. ♀ juv. + skull of ♀ adult.
- "3106" p. 138 " " ♂ ad.
- "3113" p. 139 Long-eared Bat ♀ juv.
- "3157" p. 149 " do ♀ juv.
- "3157" p. 149 " do ♂ juv.
- "3157" p. 149 " do ♀ juv.
- "3157" p. 149 Lepus calotes texianus. ♀ ad. Skull only.
- "3163" p. 150 Chameleon. ♂ ad.
- "3188" p. 163 Long-eared Bat. ♀ ad. No. 114.
- "3188" p. 163 Little Bat. ♂ (ad.?). No. 115.
- "3188" p. 163 Long-eared Bat. ♂ ad. No. 116.
- "3188" p. 163 " ♂ ad. No. 117.
- "3204" p. 168 Little Long-eared Bat. ♀ ad. No. 118.
- "3214" p. 169 Castor fiber. ♂ ad. No. 120.
- "3225" p. 174 Long-eared Bat ♂.
- "3225" p. 174 Castor fiber. ♀ juv.
- "3240" p. 179 Mephitis mephitis. ♀. Skull only.
- "3284" p. 189 Castor fiber. ♂ juv.
- "3304" p. 197 Tamias harrisi. ♂ ad.
- "3307" p. 197 Long-eared Bat. ♀ ad.
- "3314" p. 200 Lepus sylvaticus arizonae. ♀ ad.
- "3317" p. 202 Long-eared Bat. ♀ juv. ♂ ad.



- 3319<sup>a</sup> / p. 203 Lepus callosus texianus ♂ juv. Young of the year. Sept 14.
- " 3330<sup>a</sup> / p. 206 Tamias harrisi. ♂ ad.
- " 3330<sup>b</sup> / p. 206 Tamias harrisi. ♀ juv.
- " 3335<sup>b</sup> / p. 207 Long-tailed Pocket Mouse ♀
- " 3335<sup>c</sup> / p. 208 House Mouse ♂ Immature.
- " 3360<sup>a</sup> / p. 227 Kangaroo Rat. ♂ juv.
- > 3 p. for. Long-eared Bat <sup>exposed in the forest this Tamias harrisi</sup>
- " 1. / p. 232 Tamias harrisi. ♀ ad. Skin & separate Skull
- " 2. / p. 232 " " " " "
- " 3. / p. 232 " " " " "
- / p. 244 Lepus sylvaticus arizonae. ♂ ad. Skull only.
- / p. 300 Long-eared Bat ♀ ad } May 23, 1884 - 1st sp.
- / p. 300 " ♀ ad }



15 =	<u>Sept.</u>	10	122	<del>32</del>	=	<del>48</del>	47
16 =	"	14	123	<del>33</del>	=	<del>15</del>	48
34 =	"	10	124	<del>34</del>	=	<del>94</del>	15
35 =	"	19	125	<del>35</del>	=	<del>62</del>	84
36 =	"	19	126	<del>36</del>	=	<del>16</del>	62
48 =	"	4	127	<del>37</del>	=	<del>64</del>	<del>16</del>
51 =	"	2	128	<del>38</del>	=	<del>35</del>	64
55 =	"	20	129	<del>39</del>	=	<del>36</del>	35
62 =	"	11	130	<del>40</del>	=	<del>55</del>	36
64 =	"	14	131	<del>41</del>	=	<del>54</del>	55
17 =	<u>Oct.</u>	4	132	<del>42</del>	=	<del>24</del>	51
18 =	"	4	133	<del>43</del>	=	<del>28</del>	21
19 =	"	5	134	<del>44</del>	=	<del>17</del>	28
21 =	"	4	135	<del>45</del>	=	<del>18</del>	17
22 =	"	5	136	<del>46</del>	=	<del>19</del>	18
23 =	"	5	137	<del>47</del>	=	<del>22</del>	19
24 =	"	7	138	<del>48</del>	=	<del>23</del>	22
25 =	"	8	139	<del>49</del>	=	<del>24</del>	23
26 =	"	25	140	<del>50</del>	=	<del>25</del>	24
27 =	"	25	141	<del>51</del>	=	<del>52</del>	25
28 =	"	4	142	<del>52</del>	=	<del>53</del>	52
52 =	"	22	143	<del>53</del>	=	<del>26</del>	53
53 =	"	22	144	<del>54</del>	=	<del>27</del>	26
+	<u>Nov.</u>	12	145	<del>55</del>	=	<del>30</del>	27
30 =	"	11	146	<del>56</del>	=	<del>3</del>	30
37 =	"	<del>20</del>	147	<del>57</del>	=	<del>58</del>	1
38 =	"	20	148	<del>58</del>	=	<del>57</del>	58
39 =	"	20	149	<del>59</del>	=	<del>37</del>	57
40 =	"	20	150	<del>60</del>	=	<del>38</del>	37
47 =	"	15	151	<del>61</del>	=	<del>39</del>	38
58 =	"	15	152	<del>62</del>	=	<del>40</del>	39
54 =	<u>Dec.</u>	7	153	<del>63</del>	=	<del>54</del>	40
						<del>64</del>	54



44 = Mar. 22 -

24 = Apr. 21

34 = " 8

45 = " 25

32 = " 15

59 = " 8

2 = May 6

5 = " 23

6 = " 23

42 = " 8

43 = " 9

60 = " 26

56 = June 8

64 = " 26

63 = " 16

65 = " 26

7 = July 15

8 = " 26

9 = " 26

40 = " 26

33 = " 2

49 = " 13

50 = " 13

4 = Aug. 10

3 = " 10

12 = " 12

13 = " 12

41 = " 15

44 = " 19

44 = " 16

46 = " 16

47 = " 19

44

91 = 41.

92 = 59

93 = 31

94 = 32

95 = 29

96 = ~~25~~ 45

97 = ~~42~~ 2

98 = ~~43~~ 42

99 = ~~5~~ 43

100 = ~~6~~ 5

101 = ~~60~~ 6

102 = ~~56~~ 60

103 = ~~63~~ 56

104 = ~~64~~ 63

105 = ~~65~~ 61

106 = ~~33~~ 65

107 = ~~50~~ 33

108 = ~~49~~ 50

109 = ~~7~~ 49

110 ~~20~~ = 8 7

111 ~~24~~ = 9 8

112 ~~22~~ = 10 9

113 ~~23~~ = 11 10

114 ~~24~~ = 3 11

115 ~~25~~ = 12 3

116 ~~26~~ = 13 12

117 ~~27~~ = 4 13

118 ~~28~~ = 44 4

119 ~~29~~ = 46 44

120 ~~30~~ = 14 46

121 ~~31~~ = 47 14



94	94	32	<u>Tamias harrisi</u>	♂ ad.	Apr. 15
107	107	33	" "	♀ juv.	July 2
	125	34	" "	♂ ad.	Sept. 10
	129	35	" "	♂ ad.	" 19
	130	36	" "	♀ juv.	" 19
	150	37	" "	♂ ad.	Nov. 16
	151	38	" "	♀ ad.	Nov. 20
	152	39	" "	♀ ad.	do
	153	40	" "	♀ ad.	do
	91	41	<u>Spermophilus grammurus grammurus</u>	♂ ad.	Mar. 22
98	98	42	" "	♂ ad.	May 8
99	98	43	" "	♂ ad.	" 9
	119	44	" "	♀ ad.	Aug. 16.
	96	45	<u>Cynomys columbianus</u>	♀ ad.	Apr. 25
	120	46	<u>Castor fiber canadensis</u>	♂ ad.	Aug. 16.
	122	47	" "	♀ juv.	" 19
	123	48	" "	♂ juv.	Sept. 4.
109	<del>108</del>	49	<u>Mus musculus</u> Linnaeus. House Mouse.	♂ ad.	July 13
108	<del>107</del>	50	" "	♀ juv.	July 13
	132	51	" "	♂ (ad?)	Sept. 21.
	142	52	<u>Leont Cactus Mouse</u> <u>Peromyscus eremicus</u>	♀ ad.	Oct. 22.
	143	53	" "	♀ juv.	" 22.
		54	<u>Kangaroo-Rat</u>	♂ juv.	Dec. 7
	131	55	<u>Crognathus penicillatus</u> , Woodh.	♀	Sept 20
103	102	56	<u>Thomomys talpoides umbrinus</u>	♂ ad.	June 8.
	149	57	" "	♀	Nov. 15
	148	58	<u>Lepus sylvaticus mitchelli</u>	♂ ad.	Nov. 15
	92	59	" " <u>arizonae</u>	♂ ad.	Apr. 8.
	102	60	" "	♂ juv.	May 26
	105	61	" "	♀ juv.	June 26
	126	62	" "	♀ ad.	Sept. 11.
	104	63	" <u>callosus texianus</u>	♀ juv.	June 16
	128	64	" "	♂ juv.	Sept. 14
	106	65	<u>Fiber zibethicus</u>	♂	June 26.



- 147 # Swift Fox. *Urocyon cinereoargenteus scottii* ad. Nov. 12, 1884
- 97 # Little Bat. *Myotis guineensis* (p. 28.) ♂ ad. May 6
- 100 # *Antrozous pallidus*,  
Long-eared Bat. (No. . (p. 300.) ♀ ad. } May 23.
- 101 # *Antrozous pallidus* (p. 300.) ♀ ad. }
- ~~Little Bat. No. 5. (p. 28.) ♂ ad.~~
- 110 ~~109~~ # *Corynorhinus macrotis pallascens* Muller,  
Long-eared Bat. (No. 3113 ♀. (p. 139.) ♀ (juv.?) July 15.
- 111 ~~110~~ # *Antrozous pallidus* 3157 ♀. (p. 149.) ♀ juv. July 26
- 112 # " " 3157 ♂. ( " ) ♂ juv. July 26
- 113 # " " 3157 ♀. ( " ) ♀ juv. July 26
- 114 # " " 3188 ♀. (p. 163.) ♀ ad. Aug. 10
- 115 # *Myotis guineensis*  
Little Bat. " 3188 ♂. (p. 163.) ♂ (ad.?) Aug. 10.
- 116 # *Antrozous pallidus*,  
Long-eared Bat. " 3188 ♀. (p. 163.) ♂ ad. Aug. 12.
- 117 # *Antrozous pallidus* 3188 ♂. (p. 163.) ♂ ad. Aug. 12.
- 118 # *Myotis lucifugus* (longicrus?)  
Little Long-eared Bat. " 3204 ♀. (p. 168.) ♀ ad. Aug. 15.
- 121 # *Antrozous pallidus*  
Long-eared Bat. " 3225 ♂. (p. 174.) ♂ juv. Aug. 19.
- 124 # *Antrozous pallidus* 3307 ♀. (p. 197.) ♀ ad. Sept. 10.
- 127 # " " 3317 ♂. (p. 202.) ♂ ad. Sept. 14.
- 135 # *Sciurus hudsonius fremonti* ♀ ad. Oct. 4
- 136 # " " " ♀ ad. Oct. 4
- 137 # " " " ♂ ad. Oct. 5
- 20 # " *aberti* ♂ ad. [Febr, 1884.]
- 133 # " " " ♂ juv. Oct. 4
- 138 # " " " ♂ ad. " 5
- 139 # " " " ♂ ad. " 5
- 140 # " " " ♀ ad. " 7
- 141 # " " " ♂ ad. " 8
- 144 # " " " ♀ ad. " 25
- 145 # " " " ♀ ad. " 25
- 134 # *Tamias asiaticus quadrivittatus*. ♂ ad. " 4
- 95 # " " *dorsalis*. ♀ ad. Apr. 21.
- 146 # " " " ♀ ad. Nov. 11.
- 93 # " *harrisi* ♂ ad. Apr. 8.



"33702."

Tamias asiaticus quadrivittatus. Rocky Mountain  
Chipmunk. ♂ ad. Baker's Butte, Mogollon Mts., 35 miles  
east of Ft. Verde, A. T., October 4<sup>th</sup>, 1884.

Nose to eye, 17; ear, 30; occiput, 38; root of tail, 140;  
end of outstretched hind-leg, 240. Forearm, 24;  
fore-foot + cl., 18; cl., 5. Leg, 37; hind foot + cl., 33;  
cl., 4.5. Between eyes, 15. Ears, height above skull,  
43; from meatus, 19; width 14. Tail from  
root to end of vertebrae, 96; hairs, 120; ears  
pointed. Shot in a tree!

"37792."

Tamias asiaticus dorsalis. Gila Chipmunk.

♀ (ad?). Shot at the head of Cataract Creek, near  
the Lupai Indian settlement, Northern Arizona,  
November 11<sup>th</sup>, 1884. Total length <sup>(=241 mm)</sup> 9.50 inches. Tail  
from root to end of vertebrae, 3.75; hairs 4.60;  
nose to eye, 4.5; ear, 1.20; occiput, 1.45; root of tail,  
4.90; end of outstretched hind-leg, 7.20. Ears, height  
above skull, 6.5; meatus, 8.0; width, 4.5. Fore-arm,  
9.0; fore-foot + cl., 6.4; Leg, 1.35; hind-foot, 1.20.

The sides are strongly  
and very smooth.

Blackish-brown  
is given 16<sup>th</sup>.

Shot among the broken rocks at the base of the Canyon  
-wall, beneath Mesquite-bushes. It uttered a  
rather loud and curious note. <sup>See remark on p. 798. of</sup> Allen's Mon. Birds, No. 3385 etc.

"8" p. 28 of Journal.

Tamias asiaticus dorsalis, ♀ ad. Shot on the top  
of the mountain behind Whipple Barracks, in pine  
timber, April 21<sup>st</sup>, 1884. Nose to eye, 17; ear, 32;  
occiput, 41; root of tail, 145; end of tail (hairs) 272.  
Tail from root to end of vertebrae, 95; hairs, 127.  
Fore-foot, 18.3; its longest claw, 4. Hind-foot, 3.1; its  
longest claw, 5. Distance between outstretched fore-claws, 145.  
Fore-arm, 23. Leg, 39.5. <sup>(Shot on the limb of a prostrate</sup> fine-tree, a part of from the ground.



67. 28 of Journal.

\* Tamias harrisi (Aud. and Bach.) Allen. Harris's Chipmunk. ♂ ad. Fort Verde, A.T. April 8<sup>th</sup>, 1884. Shot by Mrs. Meams. This is the first one I ever saw! It ran in a hole beneath a mesquite bush and came out again when I called it making a screeching sound. Nose to eye, 17.4; ear, 36; occiput, 43; root of tail, 172; end of outstretched hind-leg, 255; end of tail (hairs), 277. Fore-arm, 24; fore-foot, 23.5; its longest claw, 8. Leg, 39; hind-foot, 36.4; its longest claw, 8. Tail from root to end of vertebrae 86; hairs, 112.

7. 28 of Journal.

Tamias harrisi (Aud. & Bach.) Allen. ♂ ad. Fort Verde, A.T., April 15<sup>th</sup>, 1884. Nose to eye, 17.5; ear, 35; occiput, 42; root of tail, 155; end of outstretched hind-leg, 236; end of hairs of tail, 259; Tail from root to end of vertebrae, 80; hairs, 104. Distance between fore-claws across shoulders, 162. Fore-arm 25; fore-foot, 22; longest cl., 6.5. Leg, 33; hind-foot, 35; longest claw, 7.

Tamias harrisi (Aud. & Bach.) Allen. ♂ ad. Grand Cañon of the Colorado near Pine Springs, Arizona. November 16<sup>th</sup>, 1884. Nose to eye, 70 inches; ear, 137; occiput, 173; root of tail, 6.25. Tail from root to end of vertebrae, 2.00; hairs, 2.75. Between claws, across shoulders, 6.25. Nose to end outstretched hind-leg, 9.00. Fore-arm, 93; fore-foot, 90. Leg, 150; hind-foot, 140 (Upper incisors from gum, 12. Total length, 9.00 { Lower " " " " .28. Ear above skull, 30; meatus 40; width, 40.



This and 2 following  
in same order  
on p. 232 of Journal

Tamias harrisi (Aud. and Bach.) Allen. Harris's Chipmunk.  
♀ ad. 12 miles east of Peach Springs Station on the  
"A. & P." Railroad. November 20<sup>th</sup>, 1884.

[See Journal for measurements, etc.]

Tamias harrisi (Aud. & Bach.) Allen. ♀ ad. do do do.

Tamias harrisi (Aud. & Bach.) Allen. ♀ ad. do do do.  
<sup>Flagstaff, D. F. Mts</sup>

Sciurus aberti Woodh. ♂ ad. <sup>Flagstaff, D. F. Mts</sup> Bill Williams. Feb. 1884. Dr. Bishop.

"3371a"

(p. 219 of  
field note-book)

Sciurus aberti Woodhouse. Abert's Pine Squirrel.

♂ juv. No measurements taken. <sup>Oct. 4, 1884. Baker's</sup> Butte, Mogollon Mts, A. T.

do p. 136

Sciurus aberti, Woodh. ♂ ad. Oct. 5, 1884. Amelano.

Shot on Genl. Geo. Creek. Mogollon Mts. bet. Flagst. & Lake Tanks, A. T.

do p. 137

Sciurus aberti, Woodh. ♂ ad. Shot by me. Oct. 5, 1884, at

Mogollon Mts., between General Springs and Lake Tanks, A. T.

do p. 157

Sciurus aberti. ♀ ad. Cañon Creek, Yonto Basin, A. T.

Oct. 7<sup>th</sup>, 1884.

do p. 161

Sciurus aberti. ♂ ad. Between Cañon Creek and Cebicu

Creek, A. T. Oct. 8, 1884.

do p. 93

Sciurus aberti. ♀ ad. Mormon Town, <sup>East of</sup> Strawberry

Valley, in "Pine Flat," Arizona Territory, Oct. 25-

do p. 93.

Sciurus aberti. ♀ ad. Strawberry Valley, A. T. Oct. 25-

Lepus sylvaticus nuttalli ♂ ad. Pine Springs, 15 mi.

South of the Grand Cañon of the Colorado. Nov. 15/1884.

Nose to eye, ~~1.56~~ 1.56 in (= 40 mm.); ear, 3.00 (76); occiput,

3.30 (84); root of tail, 14.60 (371); end of outstretched

hind leg, 23.00 (584); Fore leg, 2.85 (72); manus,

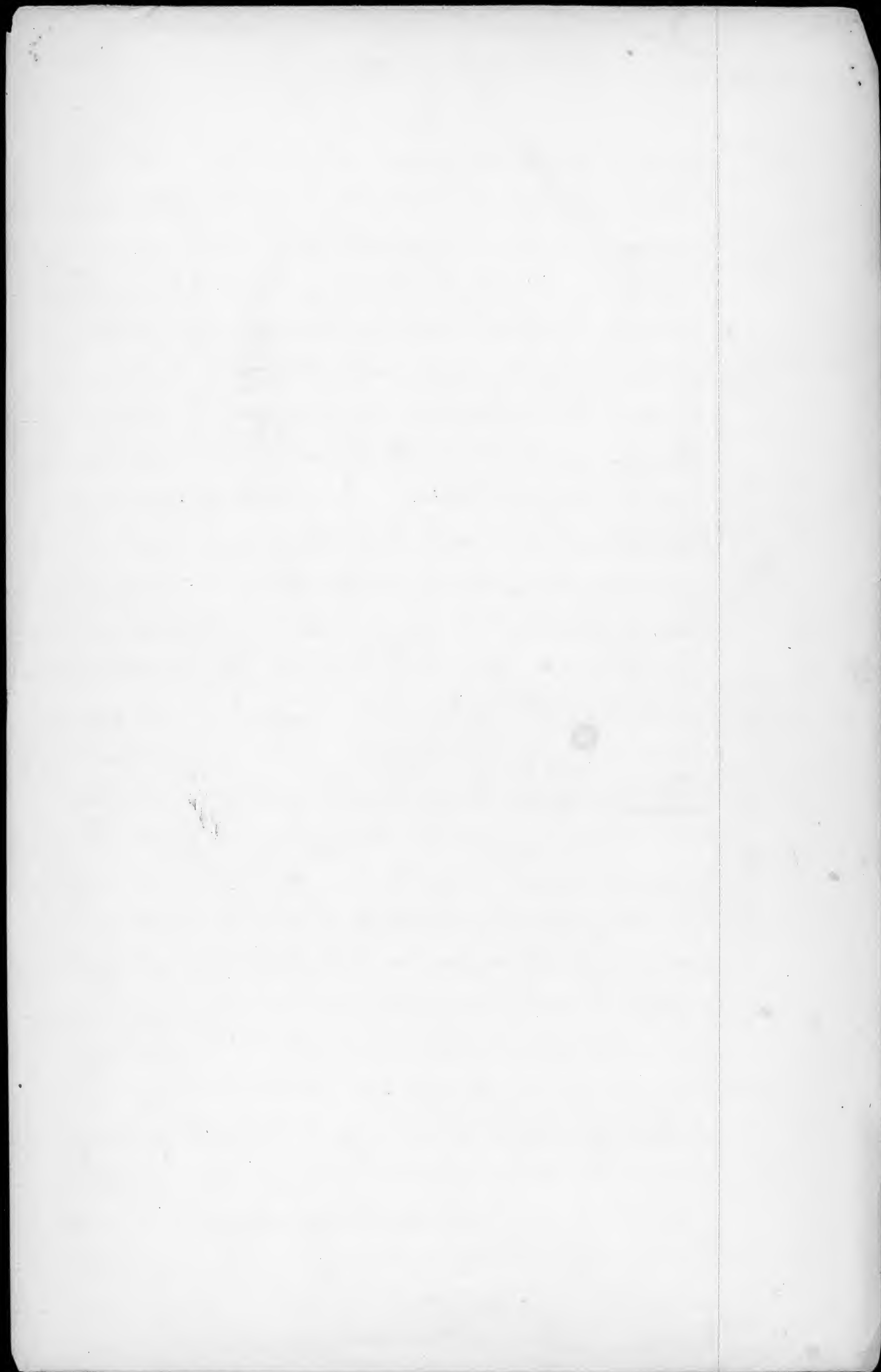
2.00 (51); Hind leg, 4.35 (110); Pes & fr. h. 4.00

(102); Tail to end vert., 2.75 (70); hairs, 3.25 (83);

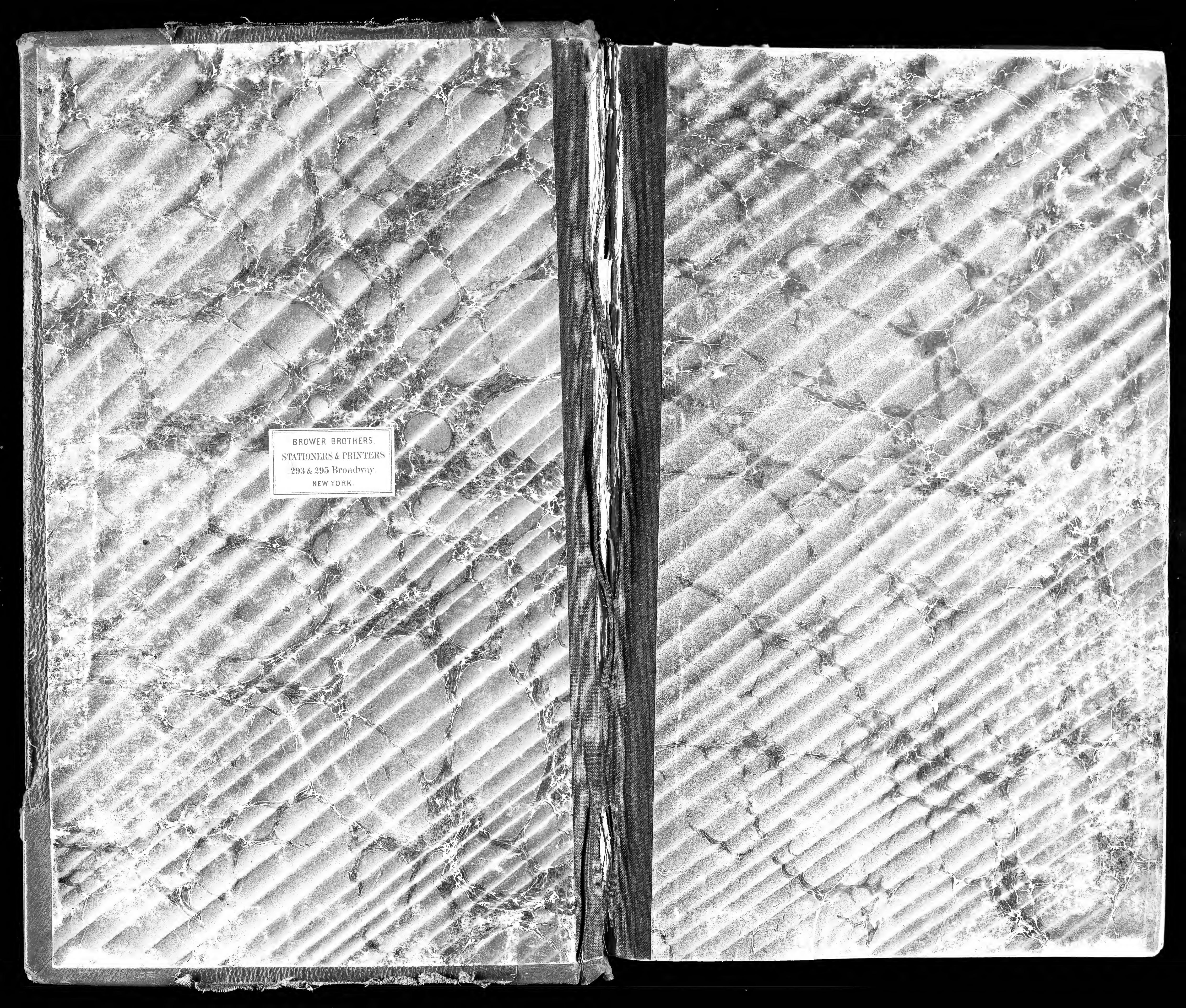
Ears, height above crown, 3.25 (83); breadth 2.00 (51);

Ears barely edged blackish. This specimen is almost  
exactly like those shot at the head of the Super Cañon  
(on the top of the bluffs) as we came out.







The image shows the front cover of an old book. The cover is decorated with a marbled paper pattern featuring diagonal lines and irregular, organic shapes in shades of grey, white, and black. A small, rectangular, light-colored label is affixed to the center of the cover. The label contains the following text: "BROWER BROTHERS." on the first line, "STATIONERS & PRINTERS" on the second line, "293 & 295 Broadway." on the third line, and "NEW YORK." on the fourth line. The book's spine is visible in the center, showing the binding structure and some wear. The edges of the cover are slightly frayed, indicating age.

BROWER BROTHERS.  
STATIONERS & PRINTERS  
293 & 295 Broadway.  
NEW YORK.



(Birds) (1884) Fort Verde.

✓ 2879. Pipilo fuscus mesoleucus ♂ ad. May 19, 1884.  
Near Ash Creek, Yavapai Co., A. T.

230; 310; 97; 112; culmen, 17; gape, 18; tarsus,  $2\frac{5}{10}$   
middle toe and claw, 26; cl. 7. Iris, reddish-brown.  
Bill, dusky above and on tip of mandible; resi-  
-due bluish flesh-color. Legs, feet & claws,  
brown. Was singing a loud, peculiar but agreeable ditty.

✓ 2880. Icterus parisorum, Bp. ♂ ad. May 19, 1884.

223

Near Ash Creek, Yavapai Co., A. T.

223; 324; 108; 99; cul., 22; gape, 23; tarsus, 24;  
mtc., 25; cl. 8.

✓ 2881. Lophortyx gambeli, Nutt. Gambel's

Crested Partridge. ♂ ad. Near Ash Cr. May 19, 1884

280; 373; 114; 104; cul., 11.5; gape, 14; tarsus, 33;  
mtc., 38; cl. 10.

✓ 2882. Lophortyx gambeli, Nutt. ♂ ad. Near Ash Cr. May 19.

285; 375; 112; 102; cul., 11.2; gape, 14; tarsus, 31;  
mtc., 36; cl., 9.

✓ 2883. Lophortyx gambeli, Nutt. ♀ ad. Near Ash Cr. May 19.

272; 365; 113; 95; cul., 11.5; gape, 14; tarsus, 30;  
mtc., 38; cl. 9.

✓ 2884. Lophortyx gambeli, Nutt. ♀ ad. Near Ash Creek, May 19.

283; ~~38~~ 379; 117; 103; cul., 11.4; gape, 15;  
tarsus, 31; mtc., 36; cl. 8.5

May 21, 1884. Fort Verde, A. T.

✓ 2885. Icteria virens longicauda ♂ ad.

194; 256; 79; 89; cul., 14.5; gape, 18.7; nostr., 10.4  
tarsus 27; mtc., 21.5; cl. 5.5. Shot by E. W. Mcams.

✓ 2886. Tachycineta thalassina (Sw.) Cab. ♂ ad.

136; 324; 118; 55; nostr. 5; gape, 12.5; tars., 11;  
mtc., 15; cl. 5. Iris, hazel. Bill, brownish black.  
Legs and feet, dark brown; claws, black.

✓ 2887. Scolecophagus cœrulea (L.) Sw. ♂ ad.

188; 298; 92; 80; cul., 17; gape, 19; tarsus, 22;  
mtc., 24.5; cl. 7. Iris hazel. Bill with maxilla  
blackish; mandible, bluish. Leg, feet & claws,  
brownish-black.

The first Louisiana Tanager were seen today.



Nuttall's Whippoorwill was first seen and heard at the top of Copper Canon on May 19. Lt. Wessells heard one at Whipple on the 17th. Blue Grosbeak first seen at Verde May 21. Scott's Oriole is quite numerous about the Post. Nuttall's Whippoorwill. - One seen, evening May 21.

May 22<sup>nd</sup>, 1884. Ft. Verde.

Pyrranga ludoviciana. - Abundant about the Post, frequenting low bushes, cotton wood trees occasionally, and spending much time upon the ground.

Scott's Oriole. - Several seen.

Nuttall's Poor-will. - One seen to-day under some cottonwoods near the River, whence it flew about quite well.

Petrochelidon lunifrons, Arundo horreorum, Tachycineta thalassina and Stelgidopteryx serripennis were all present.

Cyanospiza amoena. - A pair seen beside the river near the Post were the first seen at Verde.

The Black-headed Grosbeak was first seen at Verde yesterday, May 21.

307. \* Pyrranga ludoviciana ♂ ad. Shot by E. W. Means with the little gun, beside our house. May 22. 192; 307; 97; 76; cul. 16.2; gape, 20; tars., 20; mte., 20.5; cl. 6.

308. Pyrranga ludoviciana ♂ ad. May 22, 1884. 191; 303; 94; 76; cul., 16; gape, 20.5; tars., 21; mte., 20; cl. 6.

309. Pyrranga ludoviciana. ♂ ad. May 22, 1884. 192; 309; 98; 76; cul., 16.5; gape, 21; tarsus, 20; mte., 19; cl. 6. Iris, hazel. Bill olive, dusky on point of maxilla. Legs & feet, bluish-gray; claws, brown.

310. Dendroica aestiva ♂ ad. Ft. Verde, May 22. 123; 188; 57; 46; nost., 7.5; gape, 13.5; Tarsus, 18; mte., 14.5; cl. 4.

311. Dendroica auduboni. ♂ ad. Ft. Verde. May 22. 143; 238; 74; 57; nost., 7; gape, 13.5; tars., 19.5; mte., 17.5; cl. 5.5. Iris, hazel. Bill, feet & claws, black.

312. Picus scalaris ♂ ad. Ft. Verde, A.T. May 22. 192; 335; 103; 65; cul. 24.5; gape, 26.5. Tarsus, 18.5; mte 22; cl. 8.5.

313. Icterus bullocki. ♂ ad. Ft. Verde May 22. 204; 313; 98; 83; cul., 20; gape, 21; tarsus, 24; mte., 24; cl., 7. Iris hazel. Bill with maxilla black; mandible blue, shading into dusky at tip. Legs & feet dark bluish-gray; claws, dusky brownish.

314. Icterus bullocki ♂ ad. May 22, Verde. This & the above were a mate pair, & both shot at one shot. 210; 315; 100; 87; cul., 19.5; gape, 21; tarsus 25; mte., 24; cl. 7. Iris hazel. Bill with maxilla brownish-black; mandible blue at base shading into brownish. Legs and feet bluish gray, much lighter than in male. Claws, yellowish-brown.

315. Molothrus ater. ♂ ad. May 22. 182; 315; 98; 73; cul., 16; gape, 17; tarsus 24; mte., 23.5; cl., 7. Iris hazel. Bill, legs, feet & claws black.

316. Molothrus ater. ♂ ad. May 22. 189; 323; 101; 75; cul. 16; gape, 17; tarsus, 25; mte., 24; cl. 7. Colors as above.

317. Xanthocephalus retrocephalus ♂ juv. May 22. 260; 422; 134; 104; cul., 22; gape, 22; tars., 36; mte., 36; claw 11. Iris, hazel. Bill, brownish black. Legs, feet & claws, black.

318. Xanthocephalus retrocephalus, ♂ juv. May 22. 275; 457; 139; 106; cul., 24; gape, 24; tarsus, 37; mte., 37; claw 11. Sex & juv. carefully determined.

319. Little Vireo (Vireo pusillus L.) ♂ ad. May 23. 131; 185; 56; 54; nost., 6.5; gape, 14; tarsus 20; mte. 14; claw, 5. Iris, hazel. Bill with maxilla brownish-black; mandible fleshy-brown. Legs and feet dark bluish-gray. Was singing a pretty song when shot.

May 23, 1884. Ft Verde, A. T.

320. *Porospiza bilineata* ♀ ad May 22. 21.5; 216; 289; 99; 102; Cul., 10.6; gape, 12; tarsus, 19; mtc., 17; cl. 5.
321. *Junco sparrow* ♂ ad. 260; 572; 183; 130; Culmen including cere, 15.5; cere, 4.6; Culmen, 12.5; gape, 18; tars., 35; mtc., 32; cl., 10. Iris hazel, eyelids + cere orange yellow, legs and feet lemon yellow, claws bluish black - bill bluish shading into blue-black at tip. Plumage unusually pale.
322. *Tyrannus verticalis* ♂ ad. 220; 400; 127; 95; noot. 14.5; gape 25.5; tars., 19; mtc., 20; cl., 7. Shot by E. M. M.
323. *Icteria virens* ♂ ad. 200; 260; 82; 72; cul., 15.5; noot., 11; gape. 19; tars., 27; mtc., 22.5; cl., 6.5.
324. *Icterus cucullatus* ♂ ad. 217; 280; 90; 100; Cul., 20.5; gape 21; tars. 23; mtc., 22; cl., 6.3
325. *Icterus cucullatus* ♀ ad. 197; 259; 78; 89; Cul., 17; gape 19.5; tars., 22; mtc., 21.5; cl., 6. This and the above were a mated pair. Had an egg nearly ready for extrusion.
326. *Pyrauga ludoviciana* ♂ ad. 190; 305; 96; 76; Cul., 16; gape 19.3; tars. 21; mtc., 20.5; cl., 6.5.
327. *Icterus bullocki* ♂ ad. 209; 317; 100; 85; Cul., 20; gape 21; tars., 24; mtc., 23; cl., 6.5.
328. *Icterus bullocki* ♂ ad. 210; 320; 102; 86; Cul., 21; gape 22; tars., 24.5; mtc., 24; cl., 7.
329. *Icterus bullocki* ♂ ad. 205; 318; 100; 85; Cul., 19; gape 21; tars., 24; mtc., 23; cl., 7.
330. *Icterus bullocki* ♂ ad. 205; 316; 100.5; 87; Cul., 20; gape 20.5; tars., 24; mtc., 24; cl., 7.

331. *Icterus cucullatus* ♂ ad. 21.5; 216; 289; 99; 102; Cul., 10.6; gape 22; tars., 23; mtc., 22; cl., 7.

Notes :-

*Turdus migratorius propinquus*. - Last seen at Verde on May 5th. It was very abundant when we arrived at Verde late in March, but its numbers rapidly decreased during the last week in April.

*Oreoscoptes montanus*. - Has not been seen at Verde since April 18th. On the 19th I saw a number between Ash Creek and Whipple, and heard its singular and surprising musical performance.

*Mimus polyglottus*. - This species is very common about Verde. Yesterday (May 23, 1884) I found two nests, each containing five eggs, near the post. They will be found described in my book of notes on Nests & Eggs.

*Harporhynchus crissalis*. - This interesting species is now fairly numerous along the Verde River. It must breed very early, for I took two young birds of the year that flew well and appeared to be taking care of themselves on May April 29th.

*Sialia mexicana*. - A few were seen at Whipple on May 9th, since which date I have not noted any.

Specimens not Ornithological Collected

In Arizona:-

1. Jack Rabbit (*Lepus callosus texianus*). ♀ ad. (Skull). Ft. Verde, Arizona. April 1st, 1884.
2. Jack Rabbit (*Lepus callosus texianus*). ♀ ad. (Skull). Ft. Verde, Arizona. April 1st, 1884.
3. Horned Lizard (*Phrynosoma douglassii*) ad. (Alcohol) March 25, 1884. Found in the road between Hudson's Rancho on Ash Creek and Post. Verde (over)



4. Rock Squirrel (Spermophilus grammurus). <sup>♂ ad.</sup>  
(No. 91) March 22, 1884. Prescott, Arizona. Skin.
- \* 5. "Cotton-tail" Rabbit (Lepus <sup>arizonae</sup> ~~insularis~~) major. <sup>♂ ad.</sup>  
(No. 92) April 8, 1884, Fort Verde, Arizona (\* Shot by Mrs. Ella W. Mearns). Nose to eye, 35; ear, 61; occiput, 68; root of tail, 350; end of outstretched hind leg, 540. Ears, height of, 87; width, 51. Hind-foot, 86; leg, 95. Fore-foot, 41; fore-arm, 56. Skin.
- \* 6. Ground Squirrel (Tamias harrisi (Aud. and Bach.) Allen). <sup>♂ ad.</sup>  
(No. 93) April 8, 1884. Fort Verde, Arizona (\* Shot by Mrs. Ella W. Mearns). Nose to eye, 17.4; ear, 36; occiput, 43; root of tail, 172; end of outstretched hind-leg, 255; tip of hairs of tail, 277. Fore-arm, 24. Fore-foot, 23.5; its longest claw, 8. Leg, 39; hind-foot, 36.4. Tail, from root to end of hairs, 112; vertebrae, 86. Skin.

7. Ground Squirrel (Tamias harrisi (Aud. and Bach.) Allen). <sup>♂ ad.</sup>  
(No. 94) April 15, 1884. Fort Verde, Arizona. Nose to eye, 17.5; ear, 35; occiput, 42; root of tail, 155; end of outstretched hind-leg, 236; tip of hairs of tail, 259; Tail, from root to end of hairs, 104; vertebrae, 80; Distance between claws of outstretched fore-feet, 16.2. Forearm, 25; Forefoot, 22; Its longest claw, 6.5. Hind-leg, 33; hind-foot, 35; Its longest claw, 7.

- (No. 95) 8. Tamias asiaticus, var. dorsalis. Lila Chipmunk.  
♂ ad. April 21, 1884. Wupple Barracks, Arizona.  
Nose to eye, 17; ear, 32; occiput, 41; root of tail, 145; end of tail (hairs), 272. Tail, from root to end of vertebrae, 95; hairs, 127; forefoot, 18.3; its longest claw, 4. Hind-foot, 31; its longest claw, 5. Distance between outstretched fore-claws, 14.5. Fore-arm, 23. Leg, 39.5.

- (No. 97) 9. Little Salt Lake Myotis (Myotis yumanensis (H. Allen)). <sup>♂ ad.</sup>  
Shot beside the Verde River at Fort Verde, Arizona May 6, 1884.

10. Skin of a large Rattlesnake (Crotalus)  
) Killed at Fort Verde, Arizona  
June 24th, 1884.

11. Rattles of a Rattlesnake (Crotalus).  
Killed in Peach Springs Canon, May 13, 1884, coming up from the Grand Canon of the Colorado, Arizona. I killed two large Rattlesnakes, but lost the other set of rattles.



List of Birds Collected In Arizona

1. Mirula migratoria propinqua, Ridgw. Western Robin.

2. Oreoscoptes montanus (Town.) Baird. Sage Thrasher.  
♂♂ ad. ad.

3. <sup>Young:</sup> Mimus polyglottus (Linn.) Boie. Mockingbird.  
♀♀ ad. ad. Nos. 2915, 2953.

Nests and eggs:  
4. Carpodacus crissalis, Henry. Red-vented Thrasher.  
♀♀ ad. ad. Nos. 2799, 2831, 3018.

Nests and eggs:  
5. Sialia mexicana, Swain. Californian Bluebird.  
♀♀ ad. ad. (2660), 2706.\*

6. <sup>Young:</sup> Sialia arctica, Swain. Rocky Mountain Bluebird.  
♀♀ ad. ad. 2704\*, 2705\*.

7. <sup>Young:</sup> Phainopepla nitens (Sw.) Sel. Black-crested Flycatcher.  
3041, 3043, 3044, 3052, 3058, 3069. ♀♀ ad. ad. 2974, 2995, 2996, 3017.  
Young: ♂♂: 2869, 3068, 3108, ♀♀: 3045.

8.

9.

10.

11. Lophophanes inornatus (Lamb.) Cass. Plain Titmouse.  
♀♀ ad. ad. (2648)(

12.

Territory by Edgar A. Mearns

No. 2688 ♂ ad.,

♂♂ ad. ad. Nos. 2681, 2720\*, 2722\*, 2723, 2724, 2763.

♂♂ ad. ad. Nos. 2797\*, 2810, 2990\*.

Young:  
♂♂ ad. ad. Nos. 2712, 2719\*, 2830, 2969,

Young: ♂♂: 3025, 2800,

Young: ♀♀: 2955, 3026, 3072.

♂♂ ad. ad. Nos. (2656), 2777, 2807,

♂♂ ad. ad. Nos. 2694\*,

♂♂ ad. ad. Nos. 2861, 2941, 2961, 2975, 2976, 2977, 2980, 2997, 2998, 3001, 3002, 3011, 3035, 3039,  
3019, 3036, 3040, 3042, 3053, 3057, 3107.

Nests & eggs:

Nestlings: 3046, 3047.

♂♂ ad. ad. Nos. (2647)



13. Psittacus

14. Auriparus flaviceps (Sunder.) Baird. Yellow-headed Tit.  
 ♀♀ ad. ad. 2868, 2973,

Young ♂ 3032  
 15. Sitta carolinensis aculeata (Linn.) Allen. Slender-billed Nuthatch.  
 ♂ ad. ad. (2671) (2657), 2764, 2765.  
 ♂ ad. ad. (2672)

Young ♂ 3032  
 16. Sitta pygmaea, Vig. Pigmy Nuthatch.

17.

18.

19

20. Salpinctes obsoletus (Say) Leach. Rock Wren.

21. Catherpes mexicanus conspersus, Ridgw. White-throated Wren.  
 ♀♀ ad. ad. (2678)

22.

23.

24.

25.

♂ ad. ad. 2867,

♂ ad. ad. (2671) (2657), 2764, 2765.

♂ ad. ad. (2657) (2764) (2765)

♂ ad. ad. 2747, 2769, 2778,

♂ ad. ad.



26. *Geothlypis trichas* luciae, Cooper. Lucy's Warbler.  
 ♀♀ ad. ad. 3033.

Young ♂.

♀♀ juv. 3000, 3010, 3111.

27. *Helminthophaga virginiae*, Baird. Virginia's Warbler.

28. *Helminthophaga celata lutescens*, Ridgw. Lutescent Warbler.  
 ♀♀ ad. ad. 2922.

29. *Dendroica aestiva* (Linn.) Baird. Summer Yellow Bird.  
 ♀♀ ad. ad. 2815, 2826, 2891, 3063.

30. *Dendroica audubonii* (Towns.) Baird. Audubon's Warbler.  
 ♀♀ ad. ad. 2892.

31. *Dendroica nigrescens* (Towns.) Baird. Black-throated Gray Warbler.  
 ♀♀ ad. ad.

32.

33.

34.

35. *Geothlypis macgillivrayi* (Aud.) Baird. Macgillivray's Warbler.

36. *Geothlypis trichas* (Linn.) Caban. Maryland Yellow-Throat.

37. *Icteria virens longicauda* (Laur.)

♀ ad. ad. 2920, 2943.

Young ♂. 3054, 3109.

38. *Wilsonia pusilla pusillata* (Pall.) Ridgw. Pileolated Warbler.  
 ♀♀ ad. ad. 2923.

♂♂ ad. ad. 2691, 2992, 3066, 3067, 3113.

♂♂ ad. ad. 2874,

♂♂ ad. ad.

♂♂ ad. ad. 2740, 2768, 2927,

♂♂ ad. ad. 2847,

♂♂ ad. ad. 2841.

♂♂ ad. ad. 2921, 2924.

♂♂ ad. ad. 2842,

♂♂ ad. ad. 2845, 2846, 2853, 2871, 2885, 2904, 2986, 2987, 3013, 3070.

♂♂ ad. ad.



Birds Sent to Prof. Louis O. Jerng,  
No. 111 E. 7<sup>th</sup> St., N. Y. City, Dec. 12<sup>th</sup>, 1884.

- ✓ *Geothlypis gambeli*. No. 2786 ♂ ad; 2787 ♀ ad.
- ✓ *Cyanocitta stelleri microlopha*. No. 2668 ♂ ad; 2669 ♀ ad.
- ✓ *Pyrranga ludoviciana*. No. 2948 ♂ ad.
- ✓ *Melanerpes formicivorus*. No. 2662 ♂ ad; 2661 ♀ ad.
- ✓ *Corpodacus frontalis*. No. 2658 ♂ ad.
- ✓ *Aphelocoma woodhousei*. No. 2670 ♀ ad.
- ✓ *Timonius sparverius*. No. 2666 ♀ ad.
- ✓ *Tamias ludovicianus eximiorides* ♂ ad;
- ✓ *Chondestes grammacus*. No. 2801 ♂ ad.
- ✓ *Pipilo aberti*. No. 2734 ♂ ad.
- ✓ *Quiraca coerulesca*. No. 3029 ♂ ad.
- ✓ *Amphispiza bilineata*. No. 2878 ♂ ad.

May 24, 1884. Ft. Verde, A.T.

332. *Melanerpes formicivorus barthi*. ♂ ad.  
2913. 245; 449; 113.7; 87; culmen, 28; gape, 31; tarsus, 22.5; mte., 26.5; Cl., 9. Iris, white. Bill, blue-black. Legs and feet, greenish-gray; claws, dark. This is the only specimen I have thus far seen in the Verde Valley or any where except at Whipple. It was found in an old cotton-wood hedge, most of the trees being small and dead.

333. *Contopus viridis richardsoni*. ♂ ad.  
2914. 158; 265; 89; 68; nost., 9.5; gape, 18.5; tarsus, 13.3; mte., 13; claw, 5. Iris, hazel. Bill, with maxilla, black; mandible, yellow at base, shading into brownish-black at tip. Legs, feet & claws, black. The first & only one seen thus far.

334. *Tamias polyglottus*. ♀ ad. This bird is  
2915. the parent of set  $\frac{a}{5}$  nest and eggs described in my book on Nests & Eggs, p.  
264; 352; 106; 116; nost., 13; gape, 25; tarsus, 32; mte., 29; claw, 8. Iris brownish-yellow. Bill, legs, feet and claws, black.

335. *Pyrranga ludoviciana*. ♂ ad.  
2916. 188; 300; 94; 74; Cul., 15; gape 18; tars., 21.5; Mte., 20.5; Cl., 6.

336. *Pyrranga ludoviciana*. ♂ ad.  
2917. 185; 295; 92; 73; Cul., 16; gape 19; tars., 20.5; Mte., 20; claw 6.

337. *Pyrranga ludoviciana*. ♂ ad.  
2918. 191; 305; 97; 77; Cul., 16.5; gape 18; tars., 22; Mte., 20.5; claw 6.

338. *Pyrranga ludoviciana*. ♂ ad.  
2919. 184; 297; 94; 74; Cul., 17; gape 19.5; tars., 20; Mte., 20; claw 6.5.

*Amphispiza bilineata*. - Found nest with 5 eggs in a small bush 1 foot from the ground. Eggs pure white or bluish.

339. Young Cotton-tail Rabbit ♂ juv. Ft. Verde.  
No. 102. May 26, 1884. Total length to root of tail, 190. Tail, 45. Total length. 235 *Lepus arizonae major*.



May 26th, 1884. Ft. Verde, A. T.

- ✓ 340. *Icteria virens longicauda* ♀ ad.  
 ✓ 2920. 193; 257; 81; 85; Culmen 15; gape 20.5; tars. 27; mte. 23; claw 6; rostril. 11.
341. *Geothlypis macgillivrayi* ♂ ad. First seen.  
 ✓ 2921. 138; 198; 62; 57; ~~88~~ Nostr., 7.3; gape 14; tars., 21; mte., 18; claw 5.
342. *Helminthophaga celata* ♀ ad. First seen.  
 ✓ 2922. 128; 196; 61; 53; Nostr., 8; gape 13; tars. 19; mte., 16; claw 4.4.
343. *Myiodynastes pusillus pulicatus* ♀ ad. First seen.  
 ✓ 2923. 124; 173; 53; 54; Nostr., 7; gape 13; tars., 18; mte., 13.5; claw 4.
344. *Geothlypis macgillivrayi* ♂ ad.  
 ✓ 2924. 140; 202; 62; 57; Nostr., 8.3; gape, 14; tarsus, 22; mte., 18; claw, 5. Iris, hazel. Bill, with maxilla dark brown; mandible, yellow at base, becoming pale brown towards tip. Legs, feet and claws pale yellowish-brown.
345. *Pyrranga ludoviciana* ♂ ad.  
 ✓ 2925. 192; 302; 95; 73.5; 72; Culmen, 16; gape, 20; tarsus, 21; mte., 20; claw, 6.3. Iris hazel. Bill, olive-brown above, yellowish below. Legs and feet dusky brownish-gray; claws, brown.
346. *Pyrranga ludoviciana* ♀ ad.  
 ✓ 2926. 192; 298; 93; 75; Culmen, 16.5; gape, 20; tarsus, 21; mte., 20; claw 6.3. The bill is darker and more uniform olive than the above ♂. Legs, feet & claws like the male, only a trifle darker in shade.
- Notes. - Found one nest of the *Vireo pusillus*, cones, containing one egg. Another found to-day (both May 26) contained four eggs.

May 27th, 1884. Ft. Verde, A. T.

- Dendroica tristis*. - A completed nest blew down from a cotton wood in our yard to-day, a pretty soft structure largely composed of feathers and cotton wood down mixed with a little horse hair and a few stems of plants. This species is extremely common, and its song a quite loud and pretty warble.
- Geothlypis macgillivrayi*. - Quite numerous all the way from here to Blackfords where bushes grow and a few noted in bushes about the post. It was first seen yesterday when quite a number were seen & two specimens taken.
- Myiodynastes pusillus pulicatus*. - Several seen to-day.
- Pyrranga ludoviciana*. - Extremely abundant in the low mesquite bushes which are here called "cat's claws". Both sexes are now abundant. A day or two ago females were scarce while males were common.
- Petrochelidon lunifrons*. - Still abundant.
- Hirundo erythrogastra horreorum*. - Two were seen this evening.
- Stelgidopteryx serripennis*. - Several noted.
- Phainopepla nitens*. - An old male seen four miles up the river, and another male seen near the post. A flock seen May 23rd across the River, and one seen near Blackford's on the 24th.
- Lanius ludovicianus excubitorides*. - Scarce. Saw one May 24th, and no others lately.
- Zonotrichia leucophrys*. - Several seen to-day.
- Pipilo chlorurus*. - One or two seen. Not numerous here as yet.
- Leontopus virens richardsoni*. - Several seen to-day, but not numerous.
- Ceryle alcyon*. - One seen by Linton Carrington & Volger on Oak Creek May 25, thirty miles up river.



(May 27th - Continued)

*Ardia herodias*. - One or two seen.*Agelaius vociferus*. - Still numerous upon the sand-flats along the Verde. Also comes about the post and on higher ground when the ground is wet after rains.347. *Dendroica aestiva* ♂ ad.

✓ 2927. 129; 195; 61; 47; nost., 8; gape, 15; tarsus, 19; mte., 15; cl., 5.

348. *Pipilo chloropus* ♀ ad.

✓ 2928. 183; 241; 73; 82; cul., 13.5; gape, 14; tarsus, 25; mte., 24; claw, 7.5.

349. *Chondestes grammacus* ♂ ad.

✓ 2929. 175; 282; 86; 70; cul., 14.5; gape, 15; tarsus, 21; mte., 21.5; cl., 6.5.

350. *Chondestes grammacus* ♀ ad.

✓ 2930. 171; 280; 84; 73; culmen, 13; gape, 14; tarsus, 20.5; mte., 21; cl., 6. This the above was a mated pair and were evidently about to breed.

351. *Pyrauga ludoviciana* ♂ ad.

✓ 2931. 193; 312; 98; 81; cul., 15.5; gape, 20; tars., 20.3; mte., 20; cl., 6.

~~352~~ *Pyrauga ludoviciana* ♂ ad.

194; 311; 97; 77; cul., 16; gape, 20; tars., 21; mte., 21; cl., 7. Not skinned.

353. *Pyrauga ludoviciana* ♂ ad.

✓ 2932. 195; 314; 97; 77; cul., 16; gape, 20; tars., 21; mte., 20.5; cl., 6.

354. *Pyrauga ludoviciana* ♂ ad.

✓ 2933. 193; 305; 96.5; 77; cul., 16; gape, 19; tars., 20.6; mte., 20; cl., 6.

355. *Pyrauga ludoviciana* ♂ ad.

✓ 2934. 190; 298; 91; 74; cul., 16.4; gape, 18; tars., 21; mte., 20; cl., 6.

356. *Pyrauga ludoviciana* ♂ ad.

✓ 2935. 184; 289; 89; 71; cul., 15.5; gape, 19; tars., 21; mte., 20.5; cl., 6.5.

357. *Pyrauga ludoviciana* ♀ ad.

✓ 2936. 189; 293; 89; 74; cul., 15.6; gape, 19.5; tars., 20.5; mte., 20; cl., 6.2.

358. *Pyrauga ludoviciana* ♀ ad.

✓ 2937. 191; 300; 93; 75; cul., 15.6; gape, 20; tars., 21; mte., 20.5; cl., 6.

May 28th, 1884. Ft Verde, A. T.

359. *Empidonax flaviventris* ♀ ad.

✓ 2938. 147; 219; 66; 61; nost., 8; gape, 17; tarsus, 17.5; mte., 14.5; cl., 5. Iris hazel. Bill with maxilla uniform brownish-black, and mandible entirely yellow. Legs, dark brown feet &amp; claws, brownish-black. Was apparently the author of a loud sweet song.

360. Little Vireo (*Vireo pusillus*). ♀ ad

✓ 2939. 129; 183; 55; 52; nost., 7; gape, 15; tars., 19.5; mte., 14; cl., 4.5. Iris, brown. Bill, with maxilla dark brown, whitish along edge; mandible flesh-color, marked with grayish. Legs &amp; feet bluish-gray; claws, brown.

361. *Chrysomitris psaltria* ♂ ad.

✓ 2940. 118; 205; 65; 45; culmen, 10; gape, 10; tarsus, 13; mte., 15; cl., 5.5. Iris hazel. Bill, with maxilla brownish-blue at base becoming blackish towards point; mandible, bluish, tipped dusky. Legs, feet and claws, brown.

362. *Phainopepla nitens* ♂ ad.

✓ 2941. 304; 300; 95; 102; culmen, 12; nostril, 7.5; gape, 16; tarsus, 17; mte., 17; cl., 5. Irides, bright red. Bill, legs, feet and claws all uniform flesh, which shows a decided tinge of brown when held in a strong light.

363. *Icterus bullocki*. ♂ ad.

✓ 2942. 205; 320; 106; 80; cul., 18.5; gape, 20; tarsus, 25; mte., 24; cl., 7.

364. *Icteria virens longicauda*. ad.

✓ 2943. 191; 250; 77; 85; cul., 15.2; nost., 10.5; gape, 19; tarsus, 27.5; mte., 21; claw, 6.5.

365. *Pyrauga ludoviciana* ♂ ad.

✓ 2944. 190; 304; 98; 75; cul., 16; gape, 21; tars., 21; mte., 20; cl., 6.5.

2937a Not skinned.



366. *Tyrnunculus sparverius*. Fad.  
 2944. 270; 5-67; 180; 133; Cul. including cere, 16; cere, 5.4; culmen, 11.2; gape, 17; tarsus, 36; mte., 32.5; cl. 10.5. Iris, hazel. Cere, skin about base of bill, eyelids, legs and feet yellow. Bill blue at bases of both mandibles, fading into blue-black at tip. Claws, black.

367. *Buteo ~~abbreviatus~~ abbreviatus* ad. Zone-tailed Hawk  
 2945. 498; 1245; 400; 230; culmen including cere, 33; cere, 15; culmen, 22; gape, 36; tarsus, 66; mte., 60; claw, 22. Iris, hazel. Cere and skin along gape, tarsi and toes, greenish yellow. Bill pale blue at base shading into blue-black. Claws, black. Stomach contained remains of fishes and lizards.

368. *Mergus ~~serrator~~ serrator* ad.  
 2946. 585; 885; 255; 104; cul. from frontal feathers 49; from base of bill 36; nostril 32; gape, 65; tarsus, 47; mte. 66; cl. 8.5.

Notes. - (May 28th.) *Chrysomitris palmarum*. - When flying the black and white color pattern on the under side of the wings, seen when the bird is flying overhead is very striking and distinctive. Its call-note is a loud wailing cry much more sad in character and tone than that of tristis itself. Its song is exceedingly sweet as well as sad, and is quite loud and long. The call-note is between that of the Killdeer and Wood Pewee. This is only the second time I have seen this bird since I have been in Arizona. There were several pairs amongst the large cottonwoods about three miles up the Verde.

*Pyranga rubra cooperi*? A large red Tanager and its plainly-clad male were seen in a low bush, whence they flew to the cottonwoods up the Verde, & could not be found.  
*Melospiza lincoptera*. - A single Dove with broad white wing bands flew from a short distance ahead of me, out of sight down the Verde River.

*Phainopepla nitens*. - Two pairs were seen besides the specimen shot, which latter was killed near my quarters on returning. This is the shyest of all small birds. Neither of the pairs seen could be approached.

*Pandion haliaetus carolinensis*. - One was seen feeding in the Verde.

*Buteo abbreviatus*. - Another Black Buzzard doubtless the mate of the one above captured, was seen feeding upon a dead Snaker (*Colostomus* - ?) a bait 15 inches in length which I afterwards picked up from the spot - the sand beside the Verde. The stomach of the specimen shot was empty.

*Icterus cucullatus*. - Has not been seen since May 23, when I procured several specimens. To-day I found an Oriole's nest in the cottonwood tree in which I killed a pair of Hooded Orioles on the 23<sup>rd</sup>. It was deserted and contained three eggs which, although unbroken, were smeared with other eggs which had evidently been removed and broken by some animal. The nest was attached to a large bunch of mistletoe. I packed cotton upon the eggs and stood the nest upon the ground in a protected shady spot beside a stump, fearing that I should break it if I carried it along with me. On my return a few hours later a small round hole was discovered beside the cotton and the eggs were all missing.

*Icterus bullocki*. - Several nests were found attached to the cottonwood boughs and one into which I looked contained four fresh eggs.

*Geiraea coerulescens*. At Verde the first one seen was shot on May 21. Another male was seen on May 22, and since then none have been observed.



May 29th. Fort Verde, A.T.  
 To-day was spent in skinning the birds  
 shot yesterday. A four-thirty drove in the  
 backboard with Oscar Lillian four miles  
 up the River to see a falcon. We saw  
 numberless Louisiana Tanager and  
 one male Blue Grosbeak.

*Dendroica coronata*. - A single female  
 was seen on May 27th. The species has departed.

*Ardea herodias*. - One was seen yesterday.

*Mimus polyglottus*. - A nest seen  
 yesterday was built in a low bush,  
 was very similar to the one collected, and  
 contained 3 young and two eggs about to hatch.

*Carpodacus frontalis*. - One nest found <sup>yesterday</sup>  
 contained four eggs about to hatch. The  
 nest a built in tufts of bushy branchlets  
 growing out from the banks of large cotton  
 woods, and an very coarse roughly-built nests.

*Quercus carolina*. - One nest found  
 yesterday contained two ~~eggs~~ <sup>eggs</sup> ~~which were just ready to hatch~~  
 which were just ready to hatch. One measured 27.5 X 21.

*Pipilo aberti*. - Took the first nest and  
 note of four eggs from a cottonwood tree of  
 very small size near the port. It was found  
 May 22nd and then contained 2 eggs. To-day  
 I shot the female as she flew from the nest.  
 About the nest this species utters a wheezy  
 note just like the Robin's low autumn note.

269 225; 280; 86; 113; cul., 16.5; gape, 17; tarsus  
 294 28; nte., 27; cl. 9. Iris, brown. Bill with  
 maxilla olivaceous brown lighter on edges; man-  
 dible bluish fleshy brown. Legs, feet and  
 claws, purplish-brown. *Pipilo aberti*. ♂ ad.

Note. - On May 26th, I found a nest of the  
 Little Vireo containing four eggs. I  
 was unable to procure the parents, so left  
 the nest until the 27th, when I found two  
 of the eggs gone, another with a small round

hole in the side through which the contents  
 had been extracted. The remaining egg  
 contained a completely developed chick,  
 and hence could not be preserved; but the  
 nest contained a perfectly fresh egg of  
*Nolothrus ater* <sup>viridanus</sup> which I  
 preserved with the broken egg, which measures  
 18 X 14, is pure white, minutely dotted with  
 very dark brown around the larger end, with  
 occasional specks scattered over the rest of it.  
 The Vireo's egg which contained the chick was  
 like the one above described but measured  
 17 X 13.2. The Cowbirds egg measures

May 30th, 1884. Ft Verde, A.T.

Ala shot four male Louisiana Tanagers:

2948 370. \* *Pyrranga ludoviciana*. ♂ ad. 182 X 304. E. W. M.  
 2949 371. \* *Pyrranga ludoviciana*. ♂ ad. 190 X 310. E. W. M.  
 2950 372. \* *Pyrranga ludoviciana* ♂ ad. (head orange-yellow  
 tinged with red). 182; 302; 92; 74; culmen, 17.5;  
 gape, 21; tarsus, 21.5; nte., 20; cl. 6.

373 *Empidonax pusillus* (Swains.). ♂ ad.  
 2951 150; 227; 69; 63; nost., 8.5; gape, 17.5; tarsus,  
 17; nte., 15; cl. 6. Iris, hazel. Maxilla,  
 brownish-black; mandible pale yellowish-brown.  
 Legs, feet and claws, brownish-black.

374 *Peepiza bilineata* ♂ ad.  
 2952 142; 220; 67; 64; cul., 13; gape, 13; tarsus, 19;  
 nte., 17.5; cl. 5.

375 *Mimus polyglottus* ♂ ad. Shot from nest of 5 eggs.  
 2953 260; 355; 107; 119; nost., 13; gape, 26; tarsus, 34;  
 nte., 29; cl. 7.5; Iris, yellowish-brown. Bill,  
 brownish-black. Legs feet + claws very dark  
 (blackish) brown.

376 *Spizella breweri*. ♂ ad. Shot from nest  
 2954 145; 197; 59; 65; cul., 9; gape, 9.5; tarsus 17.5;  
 nte., 16.5; cl., 5. Iris, hazel. Bill with maxilla brown  
 and mandible flesh-color, both mandibles shading into black at tip.  
 Tarsus, light brown; feet, dark brown.



377. *Harporhynchus cyssalis* ♀ juv. long of year.  
 2958. 300 X 132.5. Hair brownish-rufous.  
 Bill, black. Legs, feet and claws dark bluish-gray.

378. *Guiraca cornuta*. ♂ ad.  
 2956. 188; 295; 91; 77; cul., 18; gape, 18; tarsus, 20;  
 mte., 24; el., 7.5. Iris hazel. Bill with  
 maxilla blackish; mandible pure bluish.

Legs, feet & claws, 1.5. Tarsus brown.  
 2957. 379. *Pyrranga ludoviciana*. ♂ ad. 193 X 300.  
 2958. 380. *Pyrranga ludoviciana* ♀ juv.

189; 300; 94; 75; culmen, 16; gape, 19;  
 tarsus 19.5; mte., 19; el., 6.

2959. 381. *Zonotrichia leucophrys*. ♂ ad.  
 176; 251; 76; 79; culmen, 11; gape 13;  
 tarsus, 22; mte., 22; el., 7.

Notes. - Found a nest of the Sadder-backed  
 Woodpecker (*Picus scalaris*) in a stump of a  
 cottonwood. The tree branched near the base  
 and in <sup>the stump</sup> of the dead branches, about three  
 feet from the ground the entrance of the Woodpecker's  
 nest was discovered by the flight from it of the  
 parent. On tapping on the stump the young  
 birds were heard uttering their cry for food,  
 which resembled the cry of other species of Woodpeckers  
 & *Caprimulgus frontalis*. - Found a nest in  
 a low branch of a cottonwood which contained  
 four large young, nearly able to fly. The  
 nest was built of large sticks and other  
 coarse materials and was but loosely  
 constructed.

May 13<sup>th</sup>, 1884. Ft. Verde, A. T.

382. *Chloro flammeus latirostris* (Sp.) Coues. ad.  
 2960. 365; 1165; 330; 144; Culmen & cere (measured  
 from frontal feathers, 33; cere, 15; culmen, 22;  
 gape, 44; tarsus, 78; mte., 53; el. 2).  
 Iris indistinguishable from black. Cere & bare  
 skin about head pinkish-white. Bill waxy white,  
 exhibiting a little dusky shading just at base of  
 maxilla & tip. The scutellae of tarsus and feet, dark

or dusky brown, small in size, with broad whitish  
 areas between. Claws, olive-brown. This bird was  
 roosting in the thick branches of the cottonwoods  
 which border the Verde, and was started from  
 the tree by a shot fired at a Hummingbird  
 beneath the trees. I shot it on the wing as  
 it left the tree and brought it down winged. It  
 ran or hopped rapidly away. I pursued and  
 with some difficulty captured it. When caught  
 it uttered ~~loud~~ loud cries which could be  
 heard for miles, and were not unlike the  
 cries a pig utters when being caught. I held  
 it by its outstretched wings and it tried to  
 claw me, and as it resisted my attempts  
 to win its wings above its back so that I  
 could hold it in one hand, I tried to seize  
 its feet when it caught and clamped me  
 so severely that I dispatched it immediately,  
 instead of trying to take it home alive as I  
 at first had intended to do. <sup>Stomach contained mice,</sup>  
*Ardea herodias*. - An adult Great Blue Heron  
 was seen on the Verde. The species is doubtless  
 breeding near the Post, probably in the cotton-  
 woods along the Verde River. May 28<sup>th</sup>,  
*Pyrranga orstiva cooperi*. - I saw a pair of  
 bright colored Tanagers, the male bright red  
 all over, sitting on some low bushes near  
 the Verde a couple of miles above the Post.  
 At my approach the male bird flew into the  
 cottonwoods along the river and could  
 not be found. The female was also too shy  
 to be approached.

June 3<sup>rd</sup>, 1884. Ft. Verde, A. T.

*Phainopepla nitens*. - I saw a fine male  
 upon a dry bush, a little higher than the  
 surrounding bushes. It was too shy to  
 permit a near approach, but flew to a  
 bush at a great distance and as I  
 again approached, it took itself to a high

cottonwood-tree and perched upon the topmost dry branch, only to fly away to a dist tree when I essayed to approach it by a circuitous route. Thus it baffled me many times; until it finally reached the last cottonwood tree in the long row. As I approached this tree it eyed me closely, hopped about upon the branch on which it sat, erected its crest to the fullest extent. Three times it seemed bent upon flying across the Verde, but alighted upon another branch. It then flew strongly away over the River, then suddenly turned and flew straight back past the tree and myself at a considerable height, then dropped suddenly straight down and disappeared amongst the low scrubbery.

I followed, and had nearly gotten near enough for a shot, when it again flew, but this time straight up in the air for at least a distance of fifty feet, and snapping an insect dropped down upon the same low bush, and there remained until I secured it by a long shot. It took me some time to discover it as it had concealed itself by crawling beneath the dead twigs and rubbish under the bush upon which it had sat.

Icterus bullocki.—The nest which contained four eggs on May 28<sup>th</sup>, contained a young chick, and three eggs about to hatch, when I visited it today.

Myiarchus cinerascens. A nest was found in a cottonwood stump, a branch of a low <sup>multiple</sup> forkling of a cottonwood at a height of about four feet. The nest site was the deserted burrow of a Woodpecker, doubtless Picus scalaris, was about six inches below the entrance hole and contained four young only a day or two old. The nest was thick and composed entirely of hair of various quadrupeds, principally that of rabbits.

Geothlypis trichas.—A nest was found in a thick bush. It contained three bluish-green, unspotted eggs. The male bird revealed the situation of the nest by flying from the bush or one near it, and the female was discovered sitting upon her eggs. Thinking that more eggs might be deposited the nest and birds were left undisturbed.

Pipilo aberti.—A nest was found near the above described one of the Crissal Thrasher, and as it, too, contained but three eggs, it was left alone.

Zenaidura macroura.—Three nests were found. These birds occasionally occupy a nest in common, two pairs. Two of the nests found contained two eggs each; one suite was perfectly fresh, while the other was considerably advanced in incubation. The third nest was seen to contain eggs. So the female was shot as she sat on a low branch where she alighted when driven from her nest. Not wishing to carry the eggs about as I intended returning that way, I left the nest intact, and on my return, to my surprise found another bird sitting on the eggs. Two other birds, probably males, were seen in an adjoining tree. I fired at the second bird as she flew from the nest, but unfortunately missed her and could not obtain a second shot. The nest contained three eggs, all of which were perfectly fresh. The nest had doubtless belonged to two pairs of Doves, and without doubt would have contained a fourth egg if left undisturbed another. So far as I know this is the first instance in which two pairs of Doves have bred in one nest.

383. Phainopepla nitens. ♂ ad.  
216; 302; 95; 109; cul, 13; nost, 8; gape, 18; tarsus 18; mte., 18.7; cl., 5. Iris, red. Bill, legs & feet, black, showing a shade of brown in strong light.



384. *Myiarchus cinerascens* ♂ ad.  
2962. 212; 313; 95; 96; nost., 14; gape, 25; tarsus, 23;  
mtc., 18.5; cl., 16.5. Iris, hazel. Bill uniform black  
with a brownish tinge. Legs and feet dusky grayish  
brown; claws, black.
385. *Icterus bullocki*. ♀ ad.  
2963. 198; 310; 95; 79; culmen, 17.5; gape, 20; tarsus, 24;  
mtc., 22; cl., 16.5.
386. *Chrysomitris psaltria psaltria* ♂ ad.  
2964. 113; 204; 64; 45; cul., 10; 10; gape; tars., 13.5;  
Mtc., 15; cl., 5.3. Iris hazel.
387. *Chrysomitris psaltria psaltria* ♀ ad.  
2965. 110; 192; 61; 42; cul., 9; gape 9; tars., 12;  
Mtc., 13; cl., 4.5.
388. *Geothlypis carolina* ♂ ad. Parent of Set no. 3  
2966. 290; 456; 145; 127; cul., 14; 20; gape; tars., 22;  
Mtc., 26; cl., 6.5. Shot from nest on which was sitting.
389. *Geothlypis carolina* ♂ ad. Parent of Set no. 2  
2967. 312; 465; 147; 150; cul., 15; gape 21; tars., 21.5;  
Mtc., 25.5; cl., 5.5. Shot from nest on which it was sitting.
- June 4th, 1884. Ft. Verde, A. T.
390. *Chrysomitris psaltria psaltria*. ♂ ad.  
2968. 119; 207; 65; 44; cul., 10; gape 10.5; tars., 13;  
mtc., 15; cl., 5.
391. *Geothlypis carolina* ♂ ad.  
2969. 316; 330; 100; 142; cul., 43; nost., 34; gape 45;  
tars., 35; mtc., 32; cl., 9.
392. *Pipilo aberti* ad.  
2970. 230; 293; 92; 114; cul., 17; gape 18; tars., 29;  
Mtc., 28; cl., 9.
393. *Empidonax pusillus* (Swainson).  
2971. 153; 225; 71; 87; nost. 10; gape 18; tars., 18;  
Mtc., 14; cl., 5.
394. *Chrysomitris psaltria psaltria* ♂ ad. ♂ juv.  
2972. 111; 200; 58; 48; cul., 9; gape 10; tars., 13;  
Mtc., 15; cl., 6.

June 5th, 1884. Verde,

Rode across the Verde to Beaver Creek, and then  
tied our horses (Vogels accompanied me) and walked  
about a mile up the Creek, where I found some  
new birds, and secure some valuable specimens.  
*Phainopepla nitens* was quite numerous. They  
sat upon mesquite bushes upon the steep sloping  
banks of the stream, and could be surprised  
and captured more easily than in any locality  
in which I have hitherto seen them, as the bottom  
of the Canon was ~~here~~ covered with a growth of  
walnut saplings and underbrush which  
sheltered one from their observation.

*Pipilo aberti*. - A nest found on Beaver Creek  
contained four young which were several days old.  
The nest found June 3rd in a bunch of  
drifted debris on the Verde River, which then contained  
three eggs, had two young & a hatching egg to-day.  
*Loniophaga coerulea*. - A mated pair was seen  
amongst the tall sage bushes, and a single male  
afterward shot from a sycamore tree on Beaver.  
*Loniophaga melanoccephala*. - A pair was seen  
among the mesquite bushes on a mesa a mile  
up the Beaver, but I missed a shot at one of them.

(*Auriparus flaviceps*) - Two nests of the Yellow-  
headed Titmouse were found in the low sesquites  
on a mesa one mile up Beaver Creek, at quite a  
distance from and elevation above the stream. They  
were only a few rods apart. The parent was seen  
at each nest, and one nest was taken with the  
female parent. Iris. Set No. 4. The only note  
of the parent was a sharp <sup>metallic</sup> chirp, and she was rather  
shy retiring to the mesquite bushes at a little distance  
and there flitting about and showing unmistakable  
interest & alarm.

*Halco communis*. - A fine pair of  
adult birds flew down the Canon overhead. I  
could have shot the second bird of the pair  
if I had been prepared; but my hands  
were full of flowers & the Verdin's nest.

*Pipilo maculatus* - Three pairs in Beart Creek

*Buteo abbreviatus* - A pair at their Black Hawk were flying over Beart Creek.

395. *Amispans flaviceps* - Yellow-headed Tit. ♀ ad.  
2973. 110; 168; 50; 47; cul., 9.5; gape, 10; tars., 16; mte., 14  
claw, 4. Shot from nest and for egg.

396. *Phainopepla nitens* ♀ ad.  
12974. 203; 296; 90; 94; cul., 11.4; nost., 7.5; gape, 17;  
tarsus, 20; mte., 20; cl. 6. Iris, light brownish  
red. Bill, legs + feet, black, with tinge deeper shade  
of brown showing in strong light than in the male.

397. *Phainopepla nitens* ♂ ad.  
12975. 210; 296; 90; 101; cul., 11.5; nost., 8.2; gape, 17;  
tarsus, 18; mte., 18; cl., 5.5. Iris bright red.  
Bill, legs + feet + claws, black.

398. *Phainopepla nitens* ♂ ad.  
12976. 201; 290; 91; 97; cul., 13; nost., 8; gape, 17.3;  
tarsus, 18; mte., 18; cl., 5.5. Colors as above.

399. *Phainopepla nitens* ♂ ad.  
12977. 207; 300; 94; 104; cul., 12; nost., 8; gape, 18;  
tarsus, 18; mte., 19; cl., 6. Colors like No. 397.

400. *Phainopepla nitens* ♂ ad.  
12978. 201; 283; 87; 93; cul., 12; nost., 8; gape, 17.5;  
tarsus, 18; mte., 18; cl., 5. Colors like No. 397.

401. *Geococcyx americanus* <sup>occidentalis</sup> ♂ ad.  
2979. 310; 430; 148; 165; nost., 20; gape, 34; tars., 26;  
mte., 26.5; cl., 8. Bill orange yellow on mandible and sides of maxilla  
its basal one half. Mandible brown and tip of maxilla  
of maxilla and tip of mandible, black. Legs + feet bluish.  
Iris color - claws brownish black.

402. *Geothlypis trichas* ♂ ad.  
12980. 176; 290; 88; 71; cul., 17; gape, 18.2; tars., 20;  
mte., 22.5; cl., 7.

403. *Tyrannus verticalis* ♂ ad.  
2981. 225; 417; 126; 100; nost., 15; gape, 27; tars., 20  
mte., 22; cl., 7.6.

404. *Geothlypis trichas* ♂ ad.  
2982. 290; 320; cul., nost., 25. Not skinned.

405. *Scolecophagus* ♂ ad.

2982. 227; 575; 173; 90; cul + culmen 21;  
cul 10; cul. 14; gape 23; tars., (about) 38;  
mte., 30; cl., 11. Iris yellow - cere greenish  
Bill plumbeous black. Claws horn color at  
base, black at tip. Stomach contained hair of small mammal.

406. *Empidonax pusillus* (Pyrinus). ♂ ad.  
2983. 155; 220; 70; 65; nost., 9; gape 18.5; tars., 16.5  
mte., 15; cl., 5.

June 7th, 1884. Ft. Verde, A.T.  
*Geothlypis trichas*. - Rode through  
Copper Canyon today, in company with  
Mr. U. G. G. In a narrow side Canon  
south of the spring I found a pair of Jays  
whose nests I was looking for, when from  
the cedars on the side of the Canon I heard  
one of the sweetest songs I ever heard. With  
much difficulty I climbed up the steep wall of  
broken trap rock, and then ascended the stony  
sloping hillside until within a few yards  
of the song vocalist. I did not copy my bird  
until it was just going to fly from the  
branch of a cedar. When it flew across  
the ravine, I essayed to follow it as it  
flew from one point to another in the  
ragged ravine. Until it alighted on a cedar  
on a jutting pinnacle of rock on the opposite  
side of the ravine high above me. The hillside  
was steep and covered with broken trap rock.  
To scale the hillside was like climbing up a  
coal heap, but I ascended until within  
range, and the bird continued its song  
from the interior of the cedar branches.  
Where my eyes failed to discover. Pleading  
from the sound of its voice I thought it  
had flown past over the eminence where it was  
out of sight, and ascended until I stood  
beneath the tree, when to my chagrin, I



saw this exquisite bird, small size, sitting  
on a branch of a tree, and I could not  
get near it. It flew into a granite rock  
and thence at my approach to a dead pine  
tree, where I took a very short shot but failed  
to hit it, and afterwards followed the notes  
of its song far down an adjoining ravine  
but failed to catch so just of the bird again.

Several other birds were seen  
which were new to me and which I  
also failed to capture. The nature of  
the country, the fatigue of climbing in  
the hot sun, and the necessary noise  
made in doing so, compared to make my  
efforts fail.

On the road up Copper Canyon we  
again in going down, we saw a number  
of Black Waxwings (*Phainopepla nitens*),  
and two male Hooded Orioles (*Icterus  
cucullatus*) and a number of Rock  
Squirrels, large and small (*S. grayi* + *I. dorsalis*).

Returning down in the canyon, I heard  
again the singular note of the frog, one  
of which I captured, which uttered a loud hoarse  
sound which is strongly suggestive of a goat's  
bleat; so much does this note resemble a  
bleat, that Thomas Little's family insisted  
that they heard the bleat of the mountain  
sheep or goat, when in Grand Canyon Creek  
Canyon, but the Grand Canyon of the Colorado,  
where I myself thought that the sound  
pertained to some subterranean animal. I heard  
the note and captured specimens both at  
the Grand Canyon and at the Point  
of Rock near Prescott.

Woodhouse's Wren and the Long-spurred  
Lawrence Bunting are both breeding in the  
Canyon.

407. Woodhouse's Wren ♀ ad. Copper Canyon  
V 2984 298; 383; 110; 140; cul. 29; tarsus, 32; toe, 30;  
claw, 9. Iris, dark brown. Bill, legs, feet and claws, black.

408. *Pipilo notus megalonyx* ♀ ad. Copper Canyon  
V 2985 214; 273; 83; 103; cul., 15; tarsus, 18; toe, 28;  
claw, 8; hind-claw, 11. Iris light red.  
Bill uniformly glossy black. Legs feet & claws, purplish-brown.

June 8th, 1884. Mt. Verde, A. T.

2985<sup>a</sup> *Thomomys talpoides umbrinus*. ♂ ad.

No. 103. From tip of nose to eye (skull mutilated) —?; ear, —?;  
occiput, —?; tail, 180. Tail to end of vertebrae, 85.  
Length of fore-foot, 24<sup>longest</sup>; hind-foot, 27; longest  
claw, 15.

This species (the Southern Pocket Gopher) is very  
abundant in this region; but this is the first  
specimen I have been able to procure, as its  
subterranean mode makes its capture difficult.  
This one was killed by a soldier in the Company  
garden, and its head mangled. Its gray  
belly, like typical *talpoides*, makes the skin interesting.  
Note: Abert's Squirrel (*Sciurus aberti*, Woodhouse),  
is very plentiful in Bill Williams and the San  
Francisco Mountains, Arizona. When at Ash Fork  
I was presented by Dr. Bishop with a fine  
male specimen, which he took, with many  
others at Flagstaff, Arizona, where the  
species was abundant during the past winter.

## Birds collected in Arizona Territory.

- ✓2644. *Corvus corax carnivorus*. ♂ ad. March 17, 1884.  
Gophers Canyon, Ash Fork, Arizona.
- ✓2645. *Sphyrapicus varius nuchalis*. ♂ ad. March 17, 1884.  
Shot in a cedar tree. Ash Fork, Arizona.
- ✓2646. *Sturnella neglecta*. ♂ ad. March 17, 1884.  
Ash Fork, Arizona.
- ✓2647. *Lophophanes inornatus*. ♂ ad. March 18, 1884.  
Ash Fork, Arizona.
- ✓2648. *Lophophanes inornatus*. ♀ ad. March 18, 1884.  
Ash Fork, Arizona.
- ✓2649. *Geothlypis gambeli*. ♀ ad. March 18, 1884.  
Kells Canyon, Yavapai Co., Arizona.
- ✓2650. *Geothlypis gambeli*. ♂ ad. March 18, 1884.  
Kells Canyon, Yavapai Co., Arizona.
- ✓2651. *Geothlypis gambeli*. ♂ ad. March 18, 1884.  
Kells Canyon, Yavapai Co., Arizona.
- ✓2652. *Aphelocoma woodhousei*. ♂ ad. March 19, 1884.  
Longhart's Ranch, Yavapai Co., Arizona.
- ✓2653. *Scolecophagus cyanocephalus*. ♂ ad. March 19, 1884.  
Longhart's Ranch, Yavapai Co., Arizona.
- ✓2654. *Agelaius phoeniceus sonoriensis*. ♂ ad. March 19, 1884.  
Longhart's Ranch, Yavapai Co., Arizona.
- ✓2655. *Ammodramus erythrorhynchos*. ♂ ad. March 19, 1884.  
Longhart's Ranch, Yavapai Co., Arizona.
- ✓2656. *Sialia mexicana*. ♂ ad. March 20, 1884.  
Prescott, Arizona.
- ✓2657. *Vitta pygmaea*. ♂ ad. March 20, 1884.  
Prescott, Arizona.
- ✓2658. *Carpodacus frontalis*. ♂ ad. March 20, 1884.  
Prescott, Arizona.
- ✓2659. *Aphelocoma woodhousei*. ♀ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2660. *Sialia mexicana*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2661. *Melanerpes formicivorus*. ♀ ad. March 21, 1884.  
Prescott, Arizona.

- ✓2662. *Melanerpes formicivorus*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2663. *Melanerpes formicivorus*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2664. *Glaucochyia yarrowi*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2665. *Lophophanes inornatus*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2666. *Spinus pinus*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2667. *Aphelocoma woodhousei*. ♂ ad. March 21, 1884.  
Prescott, Arizona.
- ✓2668. *Cyanocitta stelleri macroptera*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2669. *Cyanocitta stelleri macroptera*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2670. *Cyanocitta stelleri macroptera*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2671. *Aphelocoma woodhousei*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2672. *Sitta carolinensis aculeata*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2673. *Sitta carolinensis aculeata*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2674. *Colaptes auratus mexicanus*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2675. *Picus villosus harrisi*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2676. *Picus villosus harrisi*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2677. *Carpodacus frontalis*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2678. *Carpodacus frontalis*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- ✓2679. *Cathartes mexicanus conspersus*. ♂ ad. March 22, 1884.  
Prescott, Arizona.
- \*161; 253; 79; 67; cul., 10; gape, 11; tarsus, 17;  
middle toe + claw, 18; claw, 5. Iris, hazel.
- \*160; 255; 80; 70; cul., 11; gape, 12; tarsus, 17; middle  
toe + claw, 18; claw, 5. Iris, hazel.



- ✓ 2679. *Lophortyx gambeli*, Sad. March 24, 1884.  
Hudson's rancho, Yavapai Co., Arizona.  
277; 377; 115; 107; culmen, 11; gape, 13; tarsus, 32;  
middle toe and claw, 36; claw, 9. Irides, dark  
hazel. Bill, black. Tarsi and toes, olivaceous  
bluish-gray; claws, black.
- ✓ 2680. *Picus scalaris* Wagl. Texus Sapruker. Pa. March 27,  
1884. Ft. Verde, Arizona. 185; 333; 99; 68; cul. 21;  
gape, 23; tars., 17; middle toe and claw, 21; claw, 8.
- ✓ 2681. *Oreoscoptes montanus* (Journs.) Baird.  
Sage Thrasher. Pa. March 27, 1884. Ft. Verde, Arizona.  
222; 323; 98; 95; nost., 11; gape 25; tarsus, 30;  
middle toe and claw, 26; claw, 7. Iris, yellow.
- ✓ 2682. *Lophortyx gambeli* Nutt. Gambel's Quail. Pa.  
March 28, 1884. Ft. Verde, Arizona.  
275; 368; 108; 101; cul., 11; gape, 14; tars., 30;  
middle toe and claw, 38; claw, 10. Irides, dark  
hazel. Legs and feet, brownish olive-gray; claws, black.
- ✓ 2684. *Zenaidura macroura* (Linn.) Ssp. Mourning  
Dove. ad. March 28, 1884. Ft. Verde, Arizona.  
326; 470; 154; 158; cul., 14; gape, 21; tarsus, 27;  
middle toe and claw, 36; claw, 6.
- ✓ 2685. *Oxyechus vociferus* (Linn.) Reich. Killdeer. ♂ ad.  
March 28, 1884. Fort Verde, Arizona.  
240; 512; 154; 97; cul. 20; gape, 21; tarsus, 24;  
middle toe and claw, 26; claw, 6. Bare part of tibia, 18.
- ✓ 2686. *Lophortyx gambeli*, Nutt. Gambel's Quail Pa.  
Length, 284; extent, 368. (Measured to base of wing) April 1st.
- ✓ 2687. *Junco oreganus* (Linn.) Vicill. Pa.  
Sparrow Hawk. Pa. March 28, 1884. Ft. Verde, Arizona.  
265; 390; 195; 135; base of cere  
to tip of maxilla, 14.5; cere, 3.8; cul. fr. cere, 11;  
gape, 16.6; tars., 33; middle toe and claw, 31;  
claw, 7.5. Iris, haz. Bill, horn-color at base,  
shading into through blue to black on both mandibles.  
Cere, legs & feet, orange-yellow; claws, black.
- ✓ 2688. *Mercula migratoria propinqua*, Kidgway.  
Western Robin. Pa. Ft. Verde, Arizona, April 1, 1884.  
262; 330; 140; 115; nostril, 13; gape, 28; tarsus, 34;  
middle toe and claw, 29; claw, 7. Irides, hazel.

- Legs and feet, brownish-black, with yellowish tinge  
on posterior side of tarsi & under surface of feet.  
Bill, yellow; maxilla tipped superiorly with black for  
a distance of 8 mm.
- ✓ \* *Lophortyx gambeli*, Nutt. Gambel's Quail. Pa.  
March 28, 1884. Fort Verde, Arizona. 280; 372; 117;  
111; culmen, 12; gape, 14; tarsus, 31; middle toe  
and claw, 36; claw, 8. Colors of parts the same as No. 2679.
- ✓ 2689. *Podiceps gramineus confinis* Baird. Western Grebe.  
Anch. Pa. April 3, 1884. Ft. Verde, Arizona.  
160; 256; 79; 67; cul., 11; gape, 13; tarsus, 22.5; mid-  
dle toe and claw, 19; claw, 5.5. Iris, hazel. Bill, with  
maxilla & extreme tip of mandible, brownish-black. Lower  
mandible, flesh-color. Legs and feet, fleshy brown;  
claws, brown.
- ✓ 2690. *Zonotrichia intermedia*.  
Squarros. April 4, 1884. Ft. Verde, Arizona.  
176; 248; 78; 73; cul., 12; gape, 13; tarsus, 25; mid-  
dle toe and claw, 23; claw, 6. Bill, brownish-yellow,  
tipped black on maxilla. Irides, hazel. Tarsi, fleshy  
brown. Feet, brown; Claws, brownish-black.
- ✓ 2691. *Geothlypis trichas* Lucas.  
Gray's Warbler. Pa. April 4, 1884. Ft. Verde, Arizona.  
118; 183; 59; 47; nost., 7; gape, 11; tars., 17.4; middle  
toe & claw, 14; claw, 4. Iris, hazel. Bill, with maxilla  
black; mandible, bluish. Legs & feet, dark bluish-gray.
- ✓ 2692. *Vireo pusillus*  
Pa. April 4, 1884. Ft. Verde, Arizona.  
131; 182; 57; 55; bill, measured from nostril, 6.6;  
gape, 14.3; tarsus, 19.2; middle toe & claw, 13; claw, 4.  
Irides, hazel.
- ✓ 2693. *Vireo alberti*, Baird. Albert's Towhee. Pa. April 5,  
1884. Ft. Verde, Arizona. 236; 296; 92; 119; culmen, 16;  
gape, 17.4; tarsus, 30; middle toe & claw, 28; claw, 9.
- ✓ \* 2694. *Sialia arctica*, Sad. Rocky Mountain Bluebird.  
Ft. Verde, Arizona, April 5, 1884. (Shot by E. W. Means).  
185; 348; 110; 76; nostril, 9.5; gape,  
21.7; tarsus, 23; middle toe & claw, 21.5; claw, 5.5.  
Irides, brown. Bill & feet, black.

when over fresh.

- ✓ 2695. *Voocetes gramineus confinis* <sup>when over fresh.</sup> Ad. April 5, 1884, Ft. Verde, Arizona. 168; 277; 84; 71; culmen, 12; gape, 13.2; tarsus, 23; middle toe + claw, 20; claw, 6.
- ✓ 2696. *Voocetes gramineus confinis*. Ad. April 5, 1884. Fort Verde, Arizona. 168; 274; 82; 69; cul. 11.4; gape, 13.7; tarsus, 23; middle toe and claw, 20; claw, 6.
- ✓ 2697. *Lupinus arboreus*, Barid. Ad. April 7, 1884. Ft. Verde, Arizona. 237; 332; 90.5; 116.5; cul., 17; gape, 18; tarsus, 31; middle toe and claw, 29; claw, 9.
- ✓ 2698. *Sturnella neglecta*, And. Ad. April 7, 1884. Ft. Verde, Arizona. 239; 385; 117; 79; culmen, 31.5; gape, 34.2; tarsus, 35.5; middle toe and claw, 31; claw, 8.
- ✓ 2699. *Spizella breweri*, Cass. Ad. April 7, 1884, Ft. Verde, Arizona. 145; 203; 63; 67.5; cul., 8.7; gape, 8.8; tarsus, 17.6; middle toe and claw, 17; claw, 4.8. Irides, hazel. Bill above brownish-black; below, flesh-color. Legs and feet, fleshy-brown; claws, blackish.
- ✓ 2700. *Pyrocephalus rubinus mexicanus* (Sel.) Coues. Ad. April 7, 1884. Ft. Verde, Arizona. 156; 268; 82; 65; culmen, 13.7; nostril, 9.2; gape, 18; tarsus, 16.2; middle toe and claw, 14; claw, 4.7. Iris, hazel. Bill, legs, feet + claws, black; lower mandible showing a tinge of brown in the middle, at base.
- ✓ 2701. *Pyrocephalus rubinus mexicanus* (Sel.) Coues. Ad. April 7, 1884. Ft. Verde, Arizona. 154; 261; 80; 65; culmen, 15; nostril, 10; gape, 19.2; tarsus, 16.5; middle toe and claw, 15; claw, 5. Irides, hazel. Bill, legs, feet + claws, black.
- ✓ 2702. *Pyrocephalus rubinus mexicanus* (Sel.) Coues. Ad. Mated with No. 2700. April 7, 1884. Ft. Verde, Arizona. 152; 263; 79.5; 63.5; culmen, 14; nostril, 9.8; gape, 19.5; tarsus, 16.2; middle toe and claw, 15.5; claw, 5. Irides, hazel. Bill, legs, feet + claws, black.
- ✓ 2703. *Pyrocephalus rubinus mexicanus* (Sel.) Coues. Ad. Mated with No. 2702. April 7, 1884; Ft. Verde, Arizona. 152; 260; 80; 63; culmen, 14; nostril, 7; gape, 18.3; tarsus, 17; middle toe and claw, 15; claw, 5. Irides, hazel. Bill, legs, feet + claws, black.

- ✓ 2704. *Sialia arctica*, Suains. Ad. April 8, 1884, Ft. Verde, Arizona (\*Shot by Ella H. Means). 183; 345; 114; 75; nostril, 10; gape, 21; tarsus, 23.5; middle toe + claw, 22; claw, 6.5. Iris, hazel. Bill, legs and feet, black.
- ✓ 2705. *Sialia arctica*, Suains. Ad. April 8, 1884. Ft. Verde, Arizona (\*Shot by Ella H. Means). 180; 342; 111; 71; bill, measured from nostril, 10; gape, 21; tarsus, 23.6; middle toe and claw, 21; claw, 5.8. Colors of parts the same as No. 2704, above.
- ✓ 2706. *Sialia mexicana*, Suains. Ad. April 8, 1884. Ft. Verde, Arizona. 173; 316; 102.5; 65; nostril, 9; gape, 19.2; tarsus, 20; middle toe + claw, 20.4; claw, 5.2. Iris, hazel. Bill, feet + claws, black. (\*Shot by Ella H. Means.)
- \* 2707. *Xanthocephalus icterocephalus* (Bonap.) Ad. Yellow-headed Blackbird. Ad. April 9, 1884, Fort Verde, Arizona (\*Shot by Ella H. Means). 276; 457; 144; 114; cul., 23; gape, 24; tars., 35.5; middle toe and claw, 37; claw, 12.
- ✓ 2708. *Sceloporus cyanocephalus* (Wagl.) Ad. April 9, 1884. Ft. Verde, Arizona. 268; 423; 132; 115; culmen, 22; gape, 24; tarsus, 33; middle toe + claw, 31.5; claw, 8. Iris, straw-yellow. Bill + feet, black.
- ✓ 2709. *Spizella breweri*, Cass. Ad. April 10, 1884. Fort Verde, Arizona. 142; 209; 64; 70; culmen, 9.6; gape, 10; tarsus, 17; middle toe and claw, 16.5; claw, 4. Irides, hazel.
- ✓ 2710. *Amphispiza bilineata* (Cass.) Coues. Ad. April 10, 1884. Ft. Verde, Arizona. 144; 220; 66; 70; culmen, 11; gape, 13; tarsus, 19.4; middle toe and claw, 17.5; claw, 5.5. Iris, hazel. Bill with maxilla bluish-black; mandible ~~the~~ gray-blue narrowly tipped with black. Tarsi + feet, bluish-dusky brown; claws blackish.
- ✓ 2711. *Dryocopus nigricans* (Swains.) Ad. April 10, 1884. Fort Verde, Arizona Territory. 175; 280; 85; 78; bill from nostril, 10.3; gape, 20.5.



- tarsus 17; middle toe + claw, 14.6; claw, 5. Iris, hazel. Bill, legs, feet + claws, black.
- ✓ 2712. *Geothlypis trichas*, Henry. Red-vented Thrasher. ♂ ad. April 10, 1884. Fort Verde, Arizona. 306; 320; 77; 144; culmen, 40.4; nostril, 3.2; gape, 43.5; tarsus, 34; middle toe and claw, 31; claw, 9. Iris, yellowish-brown. Bill, black. Legs and feet, brownish-black; claws, blackish.
- ✓ 2713. *Pipilo aberti* Baird. Abert's Towhee. ♂ ad. April 10, 1884. Fort Verde, Arizona. 230; 286; 87; 119; culmen, 15; gape, 17; tarsus, 29; middle toe + claw, 27.3; claw, 9.
- ✓ 2714. *Oxyechus vociferus* (Linn.) Reich. Killdeer. ♂ ad. April 10, 1884. Fort Verde, Arizona. 255; 495; 160; 102; culmen, 18.5; gape, 22; tarsus, 35; middle toe and claw, 26; claw, 4.5; bare part of tibia, 20. Bare skin (a slender circle) around eye, red. Iris dark hazel. Bill, black; bare part of tibia and the tarsi, greenish flesh-color. Feet, yellowish flesh-color; claws, black.
- ✓ 2715. *Oxyechus vociferus* (Linn.) Reich. ♂ ad. April 10, 1884. Fort Verde, Arizona. 260; 519; 165; 105; culmen, 22; gape, 33; tarsus, 36.6; middle toe and claw, 27; claw, 6; bare tibia, 19. Colors like No. 2714. Ovary contained an egg 9 m.m. in diameter.
- ✓ 2716. *Oxyechus vociferus* (Linn.) Reich. ♂ ad. April 10, 1884. Fort Verde, Arizona. 252; 515; 164; 104; culmen, 21; gape, 31; tarsus, 36; middle toe and claw, 26; claw, 5.5. Colors like No. 2714.
2717. *Xanthocephalus heterocephalus* (Bonap.) Baird. Yellow-headed Blackbird. ♂ ad. April 10, 1884. Fort Verde, Arizona. 275; 458; 148; 117; culmen, 23; gape, 22; tarsus, 35; middle toe and claw, 37; claw, 11.
2718. *Contopus borealis calurus* <sup>Spur.</sup> ♂ ad. April 10, 1884. Fort Verde, Arizona. 547; 1275; 386; 245; cere + culmen, 35; cere, 14; culmen, 24.4; gape, 41; tarsus, 83; middle toe and claw, 61; claw, 23. Irides, yellow. Cere, orange-yellow. Bill, bluish at

- base, shading into black.
- ✓ 2719. *Geothlypis trichas*, Henry. Red-vented Thrasher. ♂ ad. April 11, 1884. Fort Verde, Arizona. 365; 318; 95; 140; culmen, 38.5; gape, 42; nostril, 30.5; tarsus, 33; middle toe and claw, 29.4; claw, 7.6. Irides, yellow. Bill, black. (\* Shot by Ella W. Mearns).
- ✓ 2720. *Oreoscoptes montanus* (Linn.) Baird. Sage Thrasher. ♂ ad. April 11, 1884. Fort Verde, Arizona. 217; 302; 98; 43; bill, measured from nostril, 12; gape, 24.5; tarsus, 31; middle toe and claw, 25; claw, 7. Iris, yellow. (\* Shot by Ella W. Mearns).
- \* 2721. *Myiarchus cinerascens*. (\* Shot by E. W. M.) ♂ ad. April 11, 1884. Fort Verde, Arizona. 220; 327; 104; 104 (same as wing); bill, measured from nostril, 14; gape, 27; tarsus, 24.5; middle toe and claw, 20; claw, . . . The first of its species seen.
- ✓ 2722. *Oreoscoptes montanus* (Linn.) Baird. Sage Thrasher. ♂ ad. April 11, 1884. <sup>Fort Verde, Arizona.</sup> 227; 375; 95; 100; nostril, 12.2; gape, 26; tarsus, 31; middle toe + claw, 25.5; claw, 6. Irides, yellow.
- ✓ 2723. *Oreoscoptes montanus* (Linn.) Baird. ♂ ad. April 11, 1884. Fort Verde, Arizona. 223; 319; 98; 99; bill, measured from nostril, 13; gape, 26; tarsus, 31; middle toe and claw, 25; claw, 6. Iris, yellow. This specimen is cross-billed; a congenital malformation.
- ✓ 2724. *Oreoscoptes montanus* (Linn.) Baird. ♂ ad. April 11, 1884. Fort Verde, Arizona. 223; 315; 95; 92; bill, measured from nostril, 11.5; gape, 24; tarsus, 32.5; middle toe and claw, 26; claw, 6.5. Irides, yellow.
- ✓ 2725. *Geococcyx californianus* (Less.) Baird. Road-runner; Chaparral Cock. ♂ ad. April 12, 1884. Fort Verde, Arizona. 612; 565; 182; 300; culmen, 53; gape, 71; bill from nostril, 39.5; tarsus, 65; middle toe and claw, 48; claw, 13.5. Eyes, with a narrow, bright yellow circle around pupil; secondary iris, which is wide, bright hazel. Bill, with maxilla blackish, with an olive tint; mandibles greenish-olive, tipped with black. Legs and feet, greenish-gray. <sup>claws black</sup> Stomach contained a lizard 210 m.m. in length.

3726. *Empidonax obscurus*?

♂ ad. April 12, 1884. Fort Verde, Arizona. 143; 230; 72; 63; bill, measured from nostril, 8; gape, 11.5; tarsus, 16; middle toe and claw, 14.5; claw, 5.3. Iris, hazel.

3727. *Tyrannus vociferans*.

♂ ad. April 12, 1884. Fort Verde, Arizona. 225; 400; 126; 44; bill, measured from nostril, 14; gape, 27; tarsus, 18; middle toe and claw, 22; claw, 8. Iris, hazel. Bill, feet and claws, black.

3728. *Tyrannus sayi* (Bonap.) Baird. Say's Pewee.

♂ ad. April 12, 1884. Ft. Verde, Arizona. 201; 337; 107; 90; bill, measured from nostril, 11.5; gape, 23.7; tarsus, 20; middle toe and claw, 18.4; claw, 7. Iris, hazel. Bill, legs, feet and claws, black. April 12-1884. Ft. Verde.

3729. *Tyrannus nigricans* (Swainson) Bp. Black Pewee. ♂ ad.

190; 299; 94; 87; bill, measured from nostril, 11.5; gape, 21; tarsus, 18; middle toe and claw, 15; claw, 5.4. Iris, hazel. Bill, feet and claws, black.

3730. *Pyrocephalus rubinus mexicanus* (Sol.) Coues.

Vermilion Flycatcher. ♂ ad. April 12, 1884. Ft. Verde, Arizona. 156; 255; 79; 65; bill, measured from nostril, 9; gape, 18; tarsus, 16; middle toe and claw, 14; claw, 5.

3731. *Pyrocephalus rubinus mexicanus* (Sol.) Coues. ♂ ad.

April 12, 1884. Ft. Verde, Arizona. 153; 260; 79; 63; bill, measured from nostril, 9.5; gape, 19; tarsus, 16; middle toe and claw, 15; claw, 5.

3732. *Junco oreganus* (Verm.) Vieill. Sparrow Hawk.

♂ ad. April 12, 1884. Fort Verde, Arizona. 278; 595; 190; 140; cere + culmen, 16; cere, 5; culmen, 17; gape, ; tarsus, 36; middle toe + claw, 34; claw, 10.3.

3733. *Quercus carolinensis* (Linn.) Bp. Mourning Dove.

♂ ad. April 12, 1884. Ft. Verde, Arizona. 295; 465; 154; 137; culmen, 15; gape, 22; tarsus, 21.5; middle toe and claw, 28; claw, 7.

3734. *Upilo aberti*, Baird. ♂ ad. April 12, 1884

Fort Verde, Arizona. 240; 300; 94; 117; culmen, 16; gape, 17; tarsus, 30; middle toe and claw, 27; claw, 9.3.

3735. *Amphispiza bilineata* (Coss.) (Coues). Black-throated Sparrow. ♂ ad., April 12, 1884. Ft. Verde, Arizona. 145; 210; 65; 65; culmen, 12; gape, 12; tarsus, 19.5; middle toe and claw, 17.6; claw, 5.3.

3736. *Zonotrichia intermedia*.

♂ ad. April 12, 1884. Fort Verde, Arizona. 167; 250; 77; 77; culmen, 11.5; gape, 13; tarsus, 23; middle toe and claw, 22.5; claw, 6. Iris, hazel. Bill, yellow, with maxilla tipped with dusky brown. Tarsi, yellowish flesh-color. Feet, brown; claws, brownish-black. Moust just passed.

3737. *Zonotrichia intermedia*.

♂ ad. April 12, 1884. Fort Verde, Arizona. 175; 250; 75; 76; culmen, 11; gape, 13.5; tarsus, 23.5; middle toe and claw, 22.5; claw, 6. Moulting.

3738. *Zonotrichia intermedia*.

♂ ad. April 12, 1884. Ft. Verde, Arizona.

3739. *Trochilus alexandri* Black-chinned Hummingbird. ♂ ad. April 15, 1884. Ft. Verde, Arizona.

Measurements of No. 2738. 163; 235; 72; 73; culmen, 13; gape, 13; tarsus, 22; middle toe and claw, 21; claw, 6. A few brown feathers on white of crown.

3740. *Dendroica aestiva* (Aud.) Baird. Summer Yellow Bird.

♂ ad. April 15, 1884. Ft. Verde, Arizona. 133; 204; 64; 52; bill, measured from nostril, 8; gape, 14; tarsus, 18; middle toe and claw, 14.5; claw, 4.

3741. *Empidonax hammondi* (Xantus).

♂ ad. April 15<sup>th</sup>, 1884. Ft. Verde, Arizona.

3742. *Picus scalaris*, Wagl. Texas Sapsucker. ♂ ad. April 15, 1884. Ft. Verde, Arizona. 184; 327; 101; 65; culmen, 23; gape, 25; tarsus, 16.5; middle toe and claw, 20; claw, 7.7. Iris, dark red.

3743. *Lanius ludovicianus excubitorides* (Sw.) Coues.

White-rumped Shrike. ♂ ad. April 15, 1884. Fort Verde, Arizona. 231; 324; 100; 106; culmen, 16.5; gape, 25; tarsus, 27; middle toe and claw, 24; claw, 7. Iris, hazel. Bill and feet, black.



- ✓ 2744. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
April 15, 1884. Fort Verde, Arizona.  
280; 368; 110; 101; culmen, 11.5; gape, 14; nostril, 8;  
tarsus, 33; middle toe and claw, 37; claw, 10.5.
- ✓ 2745. *Sturnella neglecta*, Aud. Western Meadow Lark. ♂ ad.  
April 15, 1884. Ft. Verde, Arizona. 230; 375; 113; 73;  
culmen, 29.4; gape, 33; tarsus, 33; middle toe and  
claw, 32; claw, 7.5.
- ✓ 2746. *Pipilo aberti*, Baird. Abert's Towhee. ♂ ad. April 15,  
1884. Ft. Verde, Arizona. 233; 284; 88; 115; culmen,  
15.5; gape, 16.5; tarsus, 28; middle toe and claw, 26;  
claw, 8. Contained an egg measuring 23x17 mm,  
and several smaller ones. The egg-shell was becoming  
calcified.
- ✓ 2747. *Salpinctes obsoletus* (Say) Canyon Rock Wren. ♂ ad.  
April 16th, 1884. Squaw Peak, mining camp, near  
Fort Verde, Arizona. 157; 234; 72; 58; bill  
measured from nostril, 14.5; gape, 26; tarsus, 21.5;  
middle toe and claw, 19; claw, 5. Iris, grayish-  
brown. Bill, blackish above; lower mandible,  
horn color at base, dusky at tip. Legs, feet and  
claws, brownish-black.
- ✓ 2748. *Pipilo maculatus megalonyx* (Baird) Coes.  
Spurred Towhee. ♂ ad. April 16th, 1884. Henry  
Clay, Mining Claim near Fort Verde, Arizona.  
216; 279; 87; 106; culmen, 13.5; gape, 17; tarsus,  
27.5; middle toe and claw, 37; claw, 8. Irides, bright  
red. Bill, black. Tarsi and claws, light brown.  
Feet, dusky brown.
2749. *Tyrannus verticalis*.  
♂ ad. April 16, 1884. Fort Verde, Arizona.  
220; 377; 124; 73; bill, measured from nostril, 14;  
gape, 26; tarsus, 20; middle toe and claw, 21;  
claw, 7. Iris, hazel. Bill and feet, black.
- ✓ 2750. ~~*Lanius ludovicianus*~~ *Calamospiza bicolor* (Townsend)  
Bonap. Lark Bunting. ♂ ad. April 17, 1884.  
Fort Verde, Arizona. 175; 302; 89; 73; cul., 14;  
gape, 15.4; tarsus, 36; middle toe and claw, 24;  
claw, 6; Bill, with maxilla dusky olive-brown;

- mandible with a dusky line along gape, and dusky  
at point; residue, pale blue. Tarsi, brown; feet &  
claws, brownish-black.
- ✓ 2751. *Calamospiza bicolor* (Townsend) Bonap. Lark Bunting.  
♂ ad. April 17, 1884. Fort Verde, Arizona.  
168; 276; 92; 66; culmen, 14; gape, 15; tarsus, 33  
middle toe and claw, 23; claw, 6.5. Iris, hazel.  
Bill, dusky brownish olive on maxilla; mandible pale  
blue. <sup>tarsi & claws</sup> feet and claws, brownish-black.
2752. *Xanthocephalus icterocephalus* (Bonap.) Baird.  
Yellow-headed Blackbird. ♂ ad. April 17, 1884.  
Fort Verde, Arizona. 278x462.  
272; 450;  
143; 109; culmen, 25; gape, 26; <sup>tarsus 36.5</sup> middle toe  
and claw, 37.5; claw, 11. Irides, hazel.  
Bill, legs, feet & claws, black.
2753. *Xanthocephalus icterocephalus* (Bonap.) ♂ ad.  
April 17, 1884. Fort Verde, Arizona. 272; 450;  
143; 109; culmen, 25; gape, 26; <sup>tarsus 36.5</sup> middle toe  
and claw, 37.5; claw, 11. Irides, hazel.  
Bill, legs, feet & claws, black.
2754. *Xanthocephalus icterocephalus* (Bonap.) ♂ ad.  
Head all yellow. April 17, 1884. Ft. Verde, Arizona.  
278; 464; 144; 115; culmen, 24; gape, 25; tarsus,  
37; middle toe and claw, 38; claw, 11.5. Colors  
like those of No. 2753.
- ✓ 2755. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
April 18, 1884. Copper Canon, near Fort Verde,  
Arizona. 383; 360; 107; 102; culmen, 10.5; gape,  
14; tarsus, 29.5; middle toe and claw, 38; claw, 9.
- ✓ 2756. *Lophortyx gambeli*, Nutt. ♂ ad. April 18, 1884,  
Copper Canon, near Fort Verde. 281x273.
- ✓ 2757. *Amelocoma woodhousei* (Baird) Ridgw. Wood-  
house's Jay. ♂ ad. April 19, 1884. Banks of the  
Agua Fria, near Whipple Barracks, Arizona.  
305; 410; 127; 148; culmen, 29; gape 32; tarsus  
40; middle toe and claw, 31; claw, 9. Irides, hazel.  
Bill, feet and claws, black.
- ✓ 2758. *Eremophila alpestris adusta* fide Dwight.  
Shore Lark. ♂ ad. April 19, 1884. Between Ash  
Creek and the Agua Fria on the Verde road.  
177; 330; 104; 70; culmen, 13.5; bill, measured  
from nostril, 4.5; gape, 17; tarsus, 22; middle

- ire and claw, 18; claw, 5.3. Irides, hazel. Bill, with maxilla black; mandible, bluish horn-color, shading into black at tip. Tarsi and toes blackish.
- ✓ 2759. *Eremophila alpestris adusta* (identified by Dwight). ♂ ad. Shore Lark. ♂ ad. April 19, 1884. Between Ash Creek and the Agua Fria, on the Verde road. 180; 328; 103; 74; culmen, 12; bill from nostril, 9; gape, 17; tarsus, 23; middle toe and claw, 11.5. Colors of parts like No. 2758.
- ✓ 2760. *Eremophila alpestris adusta* (identified by Dwight). ♂ ad. Shore Lark. ♂ ad. April 19, 1884. Between Ash Creek and the Agua Fria, on the Verde road. 166; 312; 76; 65; cul., 12; bill from nostril, 9.5; gape, 15.5; Tarsus, 21.5; middle toe and claw, 17; claw, 6.
- ✓ 2761. *Pipilo maculatus megalonyx* (Bd.) Coues. Spurred Towhee. ♂ ad. April 19, 1884. Shot beside the Agua Fria, near Whipple Barrack, Yavapai Co., Arizona. 218; 272; 84; 103; cul., 14; gape, 17; tarsus, 27; middle toe and claw, 27; cl., 8.5. Iris, red. Bill, black. Tarsi, <sup>claw</sup> ~~feet~~ brown; feet, dusky-brown.
- ✓ 2762. *Junco hyemalis shufeldti*. ♂ ad. ♂ ad. Near Whipple Barracks, Prescott, Arizona. April 19, 1884. 157; 240; 72.5; 72; culmen, 11; gape, 12.7; tarsus, 20; middle toe and claw, 19.5; claw, 5.4. Singing when shot.
- ✓ 2763. *Oreoscoptes montanus* (Lown.) Baird. Sage Thrasher. ♂ ad. Between Ash Creek and the Agua Fria, on the Verde Road. April 19, 1884. 217; 313; 97; 74; bill, measured from nostril, 14; gape, 24; tarsus, 31; middle toe and claw, 26; claw, 7.
- ✓ 2764. *Sitta pygmaea*, Vig. Pygmy Nuthatch. ♂ ad. Whipple Barracks, Arizona. April 21, 1884. 110; 205; 66; 40; cul., 14; gape, 17; nostril, 10.5; tarsus, 15.5; middle toe and claw, 15.6; cl., 5.
- ✓ 2765. *Sitta pygmaea*, Vig. ♂ ad. April 21, 1884. Whipple Barracks, Prescott, Arizona. 112; 205; 63; 46; culmen, 14; nostril, 10.5; gape, 17; tarsus, 15; middle toe and claw, 16.5; claw, 5.5.

- ✓ 2766. *elanerpes formicivorus* (Sw.) G. Gairdner. Red-pecter. ♂ ad. April 21, 1884. Whipple Barracks, Arizona. 246; 457; 142; 72; culmen, 25.3; gape, 30; tarsus, 21; "middle" toe and claw, 21; claw, 9. Irides, white. Bill and claws, bluish-black. Legs and feet, lead-color.
- ✓ 2767. *Cyanocitta stelleri maculosa* (Baird) Ridgway. Tong-crested Jay. ♀ ad. 303; 450; 137; 130; culmen, 28; gape, 34; Tarsus, 45; middle toe and claw, 32; claw, 9. Bill, "legs," feet and claws, black. Whipple Barracks, Arizona. April 21, 1884.
- ✓ 2768. *Dendroica aestiva* (Sw.) Bd. Summer Yellow Bird. ♂ ad. April 22, 1884. Whipple Barracks, Arizona. 130; 200; 64; 50.5; bill, measured from nostril, 7; gape, 13.5; tarsus, 19; middle toe and claw, 14.5; claw, 4.7.
- ✓ 2769. *Salpinctes obsoletus* (Say) Caban. Rock Wren. ♂ ad. April 22. Whipple Barracks, Prescott, Arizona. 150; 230; 69; 56; bill, measured from nostril, 13; culmen, 18.5; gape, 22; tarsus, 26.5; middle toe and claw, 18; claw, 5. Irides, hazel. Bill, with maxilla black; mandible, horn-color at base, shading into blackish at tip. Legs, feet and claws, black.
- ✓ 2770. *Junco cinereus*. ♂ ad. April 22, 1884. Whipple Barracks, Arizona. 163; 257; 80; 77; culmen, 12; gape, 12; tarsus, 20.5; middle toe and claw, 20; claw, 6.
- ✓ 2771. *Linumaculus sparverius* (Linn.) Vieill. Sparrow Hawk. ♂ ad. April 22, 1884. Whipple Barracks, Prescott, Arizona. 275; 388; 188; 138; culmen including cere, 15.4; cere, 4; culmen from cere, 11.5; gape, 18; tarsus, 36; middle toe and claw, 31; claw, 9.
- ✓ 2772. *Aphelocoma woodhousei* (Baird) Ridgway. Woodhouse's Jay. ♀ ad. April 23, 1884. Whipple Barracks, Prescott, Arizona. 290; 387; 121; 134; culmen, 27; gape, 32; tarsus, 39; middle toe and claw, 29; claw, 9.
- ✓ 2773. *Aphelocoma woodhousei* (Bd.) Ridg. Woodhouse's Jay. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. (202.5)



- 312; 404; 130; 153; culmen, 26.5; gape, 31; tarsus, 37; middle toe and claw, 31; claw, 9. Irides, hazel. Bill, legs, feet and claws, black.
- ✓ 2774. *Melanerpes formicivorus* (Sw.) Bp. Californian Woodpecker. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. 242; 453; 141; 89; culmen, 26.4; gape, 29; tarsus, 21.5; middle toe and claw, 26; claw, 7. Colors like No. 2766.
- ✓ 2775. *Colaptes auratus mexicanus* (Sw.) Ridgway. Red-shafted Flicker. ♀ ad. April 23, 1884. Whipple Barracks, Arizona. 310; 520; 154; 114; culmen, 35.5; gape, 40.5; tarsus, 38; middle toe and claw, 34; claw, 11. Irides, dark red. Bill, bluish-black. Legs and feet, bluish-gray; claws, dark bluish-gray.
- ✓ 2776. *Lanius ludovicianus excubitorides*. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. 234; 333; 99; 107; culmen, 17; gape, 24; tarsus, 28.5; middle toe and claw, 24; claw, 7. Irides, hazel. Bill, legs feet and claws, black.
- ✓ 2777. *Sialia mexicana*, Swains. Californian Bluebird. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. 173; 320; 105; 69; bill, measured from nostril, 9; gape, 19; tarsus, 19.5; middle toe and claw, 20; claw, 6. Irides, hazel. Bill, legs, feet & claws, black.
- ✓ 2778. *Sayornis obsoletus* (Say) Caban. Rock Wren. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. 99; 230; 71; 57; bill, measured from nostril, 13.5; gape, 23; culmen, 17.3; tarsus, 20; middle toe and claw, 18; claw, 4.7.
- ✓ 2779. *Spizella domesticus arizonae* (Cous.) Ridgway. Western Chipping Sparrow. ♂ ad. April 23, 1884. Whipple Barracks, Arizona. 149; 232; 74; 70; culmen, 10; gape, 11.5; tarsus 18; middle toe and claw, 17; claw, 4.
- ✓ 2780. *Cyanocitta stelleri macrolopha* (Baird) Ridgway. Long-crested Jay. ♂ ad., April 25, 1884. Shot among the low oak bushes near the Agua Fria, between Whipple Barracks and Fort Verde, Arizona. 348; 475; 146; 149; culmen, 30; gape, 34; tarsus, 45; middle

- toe and claw, 32; claw, 9.
- ✓ 2781. *Cyanocitta stelleri macrolopha* (Baird) Ridgway. ♂ ad. April 25, 1884. Banks of the Agua Fria, on the road from Whipple Barracks to Fort Verde, Arizona. 326; 485; 155; 148; culmen, 31; gape, 35.7; tarsus, 46; middle toe and claw, 33; cl. 11.
- ✓ 2782. *Aphelocoma woodhousei* (Bd.) Ridg. Woodhouse's Jay. ♂ ad. April 25, 1884. Near Whipple Barracks, Arizona. 322; 433; 134; 156; culmen, 29; gape, 34; tarsus, 41; middle toe and claw, 32; claw, 9. Irides, hazel. Bill, legs, feet & claws, black.
- ✓ 2783. *Aphelocoma woodhousei* (Bd.) Ridg. Woodhouse's Jay. ♂ ad. 296; 389; 121; 143; culmen, 26.2; gape, 30; tarsus, 39; middle toe and claw, 27.5; claw, 8. April 25, 1884. Near Whipple Barracks, Arizona.
- ✓ 2784. *Aphelocoma woodhousei* (Bd.) Ridg. Woodhouse's Jay. ♂ ad. April 25, 1884. Agua Fria, on the road from Whipple Barracks to Ft. Verde, Arizona. 314; 409; 125; 150; culmen, 28; gape, 32; tarsus, 41; middle toe and claw, 31; claw, 9.
- ✓ 2785. *Lanius ludovicianus excubitorides* (Sw.) Cous. White-rumped Shrike. ♂ ad. April 25, 1884. Near Spaulding's rancho on the road from Whipple Barracks to Fort Verde, Arizona. 238; 328; 99; 107; culmen, 17; gape, 26; tarsus, 27; middle toe and claw, 23.5; claw, 7.
- ✓ 2786. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad. Near Spaulding's rancho, on the road from Whipple Barracks to Fort Verde, Arizona. April 25, 1884. 282 x 373. (For Louis W. Sargent).
- ✓ 2787. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad. Near Spaulding's rancho, on the road from Whipple Barracks to Fort Verde, Arizona. April 25, 1884. 272 x 368. (For Louis W. Sargent).
- ✓ 2788. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad. Near Spaulding's rancho, on the road from Whipple Barracks to Fort Verde, Arizona. April 25, 1884. 287; 368; 113; 119; culmen, 11.5; gape, 14; tarsus, 30; middle toe and claw, 35.5; claw, 19.

- ✓2798. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
286; 378; 113; 103; culmen, 11; gape, 14; tarsus, 33;  
middle toe and claw, 35; claw, 9. Near Spaulding's  
ranch, on the Verde road. April 25, 1884.
- ✓2799. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
280; 371; 112; 105; culmen, 11.7; gape, 15; tarsus,  
33.5; middle toe and claw, 37; claw, 9.5. Ash Creek  
near Hudson's ranch, April 25, 1884.
- ✓2791. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
Ash Creek near Hudson's ranch, on the Verde Road,  
Arizona, April 25, 1884. 277; 367; 112; 105; culmen, 11; gape, 13.5;  
tarsus, 31; middle toe and claw, 37; claw, 8.4.
- ✓2792. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
Near Spaulding's ranch, on the road between Whipple  
Baracks and Prescott, Arizona. April 25, 1884.  
282; 375; 112; 79; culmen, 11.5; gape, 14.7;  
tarsus, 32.5; middle toe and claw, 35; claw, 9.
- ✓2793. *Spinunculus spurius* (Linn.) Vieill. Sparrow  
Hawk. ♂ ad. April 26, 1884. Cherry Creek, near  
Fort Verde, Arizona. 290; 618; 202; 145; culmen  
including cere, 16; cere, 5; culmen from cere, 12.5;  
tarsus, 37; middle toe and claw, 33; claw, 10.
- ✓2794. *Cypselus saxatilis*, Woodh. White-throated Swift.  
♂ ad. April 26, 1884. Cherry Creek, near Fort Verde,  
Arizona. 150; 324; 133; 62; culmen, 6; bill, measured  
from nostril, 3.7; gape, 15; tarsus, 9; middle toe  
and claw, 11; claw, 6. Iris, hazel. Bill, black. Tarsi  
and toes, flesh-color, sparsely feathered; claws,  
flesh-brown.
- ✓2795. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
April 26, 1884. Cherry Creek, near Ft. Verde, Arizona.  
274; 360; 107; 94; culmen, 10.3; gape, 14; tarsus,  
32; middle toe and claw, 35.5; claw, 8.2.
- ✓2796. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad.  
April 26, 1884. Cherry Creek, near Ft. Verde, Arizona.  
282; 377; 116; 101; culmen, 11.3; gape, 13.8;  
tarsus, 31.5; middle toe and claw, 39; claw, 10.
- \*2797. *Mimus polyglottus* (Linn.) Boie. Mockingbird.  
♂ ad. April 28, 1884. Fort Verde, Arizona.  
255; 360; 110; 124; nostril, 17; gape, 26;

- tarsus, 33; middle toe and claw, 30; claw, 8. Bristles,  
yellow. Bill, legs, feet and claws, black (part by E. L. M.).
- ✓2798. *Carpodacus frontalis* (Say) Gray. House Finch. ♂ ad.  
155; 253; 77; 70; culmen, 9.5; gape, 10.5; tarsus  
17; middle toe and claw, 19; claw, 5.5. Ft. Verde, April 28.
- ✓2799. *Harporhynchus crissalis*, Henry. Red-vented Thrasher.  
♂ ad. April 29, 1884. Ft. Verde, Arizona. 295; 204;  
92; 138; bill, measured from nostril, 26.5; gape, 29;  
tarsus, 31.5; middle toe and claw, 31; claw, 5.  
Bristles, pale yellowish-brown. Bill, black. Legs and  
feet, dusky greenish-olive.
- ✓2800. *Harporhynchus crissalis*, Henry. Red-vented Thrasher.  
♂ April 29, 1884. Ft. Verde.  
A bird of the year. The above specimen (No. 2799) is  
its parent, as they were together. 252 X 300.
- ✓2801. *Chondestes grammacus*  
Black Finch. ♂ ad. April 29, 1884. Fort Verde, Arizona.  
178; 287; 71; 79; culmen, 12.8; gape, 15; tarsus, 21;  
middle toe and claw, 20.4; claw, 5.
- ✓2802. *Chondestes grammacus*  
Black Finch. ♂ ad. April 29, 1884. Fort Verde, Arizona.  
173; 280; 88; 78; culmen, 12.3; gape, 14; tarsus,  
20.5; middle toe and claw, 19.4; claw, 5.
- ✓2803. *Colaptes cafer* (Wagl.) Caban. Brewer's  
Blackbird. ♂ ad. April 29, 1884. Fort Verde, Arizona.  
260; 422; 132; 111; culmen, 20.5; gape, 24; tarsus,  
33; middle toe and claw, 30; claw, 7.5. Iris, yellow;  
bill, legs, feet and claws, black.
- ✓2804. *Picus scalaris*, Wagl. Texas Sapsucker. ♂ ad.  
April 29, 1884. Fort Verde, Arizona. 185; 320;  
99; 71; culmen, 21.4; gape, 23.5; tarsus, 17.7;  
"middle" toe and claw, 19; claw, 5.
- ✓2805. *Chondestes grammacus*  
Black Finch. ♂ ad. April 29, 1884. Fort Verde, Arizona.  
183; 294; 92; 79; culmen, 14; gape, 15.8; tarsus,  
22.7; "middle" toe and claw, 22; claw, 6.5.
- ✓2806. *Pyrocephalus rubinus mexicanus* (Sch.) Coues.  
Vermilion Flycatcher. ♂ ad. April 29, 1884. Fort  
Verde, Arizona. 151 X 267.



- ✓ 2807. *Sialia mexicana*, Swains. Californian bluebird. ♂ ad.  
April 29, 1884. Fort Verde, Arizona.  
176; 330; 105; 74; bill, measured from nostril, 8.7;  
gape, 18; tarsus, 20.2; middle toe and claw, 20;  
claw, 5.4.
- ✓ 2808. *Lanius ludovicianus excubitorides* (Sw.) Coes. White-rumped Shrike. ♂ ad. April 29, 1884. Fort Verde, Arizona. 232; 335; 102; 108; cul., 17; gape, 23.5; tarsus, 27.5; middle toe and claw, 26; claw, 7.
- ✓ 2809. *Lanius ludovicianus excubitorides* (Sw.) Coes. ♂ ad. April 29, 1884. Fort Verde, Arizona. 223; 322; 98.5; 102; culmen 17.5; gape, 26; tarsus, 28; middle toe and claw, 25; claw, 7.
2810. *Mimus polyglottus* (Linn.) Boie. Mockingbird. ♂ ad. April 29, 1884. Fort Verde, Arizona. 269; 380; 119; 127; bill, measured from nostril, 14; gape, 27; tarsus, 35.5; middle toe and claw, 32; claw, 8.
- ✓ 2811. *Accipiter cooperii* (Linn.) Vieill. Sparrow Hawk. ♀ ad. April 29, 1884. Fort Verde, Arizona. 280; 100; 192; 135; culmen, including cere, 16; cere, 4.2; culmen, 13; tarsus, 38.5; middle toe and claw, 31; claw, 9.
- ✓ 2812. *Accipiter cooperii* (Linn.) Vieill. ♀ ad. April 29, 1884. Fort Verde, Arizona. 285; 630; 209; 140; culmen, including cere, 15.5; cere, 4; culmen, 13; tarsus, 36.5; middle toe and claw, 32; claw, 10.
2813. *Trochilus platycercus*. Hummingbird. ♀ ad. May 1, 1884. Fort Verde, Arizona. 103; 130; 50; 33; culmen from feathers, 18; gape, 23; tarsus, 5.6; middle toe and claw, 6; claw, 3. Bill, black. Legs, feet and claws, blackish. Spotted on throat.
2814. Hummingbird. ♀ ad. May 1, 1884. Fort Verde, Arizona. 102; 120; ~~50~~ 46; 29; culmen from feathers, 22; gape, 26; tarsus, 4.3; middle toe and claw, 6.6; claw, 3. Throat unspotted.

- ✓ 2815. *Empidonax aestiva* (Sw.) Baird. Summer Yellow Bird. ♀ ad. May 1, 1884. Fort Verde, Arizona. 127; 192; 61; 49; bill, measured from nostril, 8; gape, 13.7; tarsus, 19; middle toe and claw, 15; claw, 4.2.
- ✓ 2816. *Icterus parisorum*, Bonap. Scott's Oriole. ♂ ad. May 1, 1884. Fort Verde, Arizona. 217; 332; 102; 94; culmen, 21.5; gape, 24; tarsus, 26; middle toe and claw, 25; claw, 7.5.
- ✓ 2817. *Icterus cucullatus*, Swains. Hooded Oriole. ♂ ad. May 1, 1884. Fort Verde, Arizona. 210; 285; 87; 96; culmen, 18; gape, 21; tarsus, 24; middle toe and claw, twenty-two<sup>(22)</sup>; claw, 6.
- ✓ 2818. *Icterus bullocki* (Sw.) Sp. May 1, 1884. Fort Verde, Arizona. ♀ ad. 197; 305; 98; 86; cul., 18; gape, 20; tarsus, 24.5; middle toe and claw, 23.5; claw, 6.5.
- ✓ 2819. *Lanius ludovicianus excubitorides* (Sw.) Coes. White-rumped Shrike. ♂ ad. May 1, 1884. Fort Verde, Arizona. 233; 327; 98; 104; culmen 18.5; gape, 26; tarsus 27; middle toe and claw, 25; claw 8.
2820. *Accipiter fuscus* (Sw.) Bol. Sharp-shinned Hawk. ♀ ad. May 1, 1884. Fort Verde, Arizona. 155; 675; 210; 180; culmen, including cere, 20; cere, 8; culmen from cere, 13; gape, 22; tarsus, 59; middle toe and claw, 47; claw, 12. Irides, red. Cere, greenish-yellow. Bill, blue-black, with tooth of maxilla & greatest convexity of mandible, whitish horn-color. Legs and feet, greenish-yellow; claws, black. Was flying with a Mockingbird in its claws when shot. Stomach empty.
2821. *Tyrannus verticalis*. ♀ ad. May 1, 1884. Fort Verde, Arizona. 230; 415; 127; 96; bill, measured from nostril, 14; gape, 26; tarsus, 21; middle toe and claw, 22; claw, 7. Found in a dying condition, and shortly afterwards died in a spasm. It was emaciated to an extreme degree. The bones were hard and brittle. It probably died of senility, as it was in beautiful plumage, and no other cause of death could be ascribed.

- ✓ 2822. *Tinnunculus sparverius* (Linn.) Vieill. Sparrow Hawk. ♂ ad. May 1, 1884. Fort Verde, Arizona. 262; 583; 187; 125; culmen and cere, 16; cere, 4; culmen, 12.5; gape, 18; tarsus, 38.5; middle toe and claw, 32; claw, 9.
- ✓ 2823. *Oxyechus vociferus* (Linn.) Reich. Killdeer. ♂ ad. May 1, 1884. Fort Verde, Arizona. 234; 514; 168; 77; culmen, 21.5; gape, 23; tarsus, 34; middle toe and claw, 25; claw, 6; bare part of tibia, 18.
- ✓ 2824. *Stelgidopteryx serripennis* (Aud.) Baird. Rough-winged Swallow. ♂ ad. May 2, 1884. Ft. Verde, Arizona. 135; 289; 100; 52; bill, measured from nostril, 5.5; gape, 15; tarsus, 11; middle <sup>toe + claw</sup>, 14; claw, 4.8. Iris, hazel. Bill, feet and claws, black.
2825. *Accipiter cooperi*, Bonap. Cooper's Hawk. ♂ juv. May 2, 1884. Ft. Verde, Arizona. 480; 855; 260; 240; culmen and cere, 27; cere, 11; culmen, 17; gape, 28; tarsus, 69; middle toe + claw, 59; claw, 15. Irides, yellow. Cere, greenish. Bill, pale bluish at base, shading into black at tip. Tarsi and toes, greenish-yellow; claws, black. Stomach empty.
- ✓ 2826. *Sayornis aestiva* (Swal.) Baird. Summer Yellow Bird. ♀ ad. May 2, 1884. Fort Verde, Arizona. 125; 189; 61; 56; bill, measured from nostril, 8; gape, 14; tarsus, 17; middle toe and claw, 14; claw, 4.
- ✓ \* 2827. *Chondestes grammacus*. Lark Finch. ♂ ad. May 2, 1884. Fort Verde, Arizona. 180; 285; 91; 78; culmen, 12; gape, 14; tarsus, 22; middle toe and claw, 21; claw, 5.5. (\*Shot by E.W.M.)
- ✓ 2828. *Chondestes grammacus*. Lark Finch. ♂ ad. May 2, 1884. Fort Verde, Arizona. 182; 300; 95; 79; culmen, 13.5; gape, 14; tarsus, 21.5; middle toe and claw, 22; claw, 6.
- ✓ 2829. *Picus scalaris*, Wagl. Texas Sapsucker. ♂ ad. May 2, 1884. Fort Verde, Arizona. 187; 334; 104; 70; culmen, 20.5; gape, 22.5; tarsus, 19; middle toe and claw, 20; claw, 8.
- ✓ 2830. *Harporhynchus crissalis*, Henry. Red-vented Thrasher. ♂ ad. May 2, 1884. Fort Verde, Arizona.

- 300; 327; 99; 143; culmen, 38; from nostril, 30; gape, 42; tarsus, 36; middle toe and claw, 32; claw, 8.
- ✓ 2831. *Harporhynchus crissalis*, Henry. Red-vented Thrasher. ♂ ad. May 2, 1884. Fort Verde, Arizona. 297; 311; 92; 134; culmen, 38; from nostril, 30; gape, 41; tarsus, 34; middle toe and claw, 30; claw, 8.
- ✓ 2832. *Oxyechus vociferus* (Linn.) Reich. Killdeer. ♂ ad. May 2, 1884. Fort Verde, Arizona. 260; 522; 163; 116; culmen, 12; gape, 23; tarsus, 34; middle toe and claw, 26.5; claw, 6; bare part of tibia, 20.
- ✓ 2833. *Tinnunculus sparverius* (Linn.) Vieill. Sparrow Hawk. ♂ ad. May 2, 1884. Fort Verde, Arizona. 270; 605; 188; 133; culmen and cere, 15; cere, 4; culmen, 12; gape, 18; tarsus, 35; middle toe and claw, 32; claw, 7.
- ✓ 2834. *Tinnunculus sparverius* (Linn.) Vieill. ♂ ad. May 2, 1884. Fort Verde, Arizona. 275; 585; 194; 142; culmen and cere, 15.5; cere, 5; culmen, 12; gape, 17; tarsus, 37; middle toe and claw, 32; claw, 10. This specimen and the above were a mated pair, and were looking for a nesting place among some old trees.
- ✓ 2835. *Tinnunculus sparverius* (Linn.) Vieill. ♂ ad. May 2, 1884. Fort Verde, Arizona. 215; 580; 188; 125; culmen and cere, 15; cere, 4; culmen, 12.5; gape, 18; tarsus, 25; middle toe and claw, 33; claw, 10. Contained an egg in its oviduct which was nearly ready for extension.
- ✓ 2836. *Lophortyx gambeli*, Nutt. Gambel's Quail. ♂ ad. May 2, 1884. Ft. Verde, Arizona. 280; 375; 112; 100; culmen, 11; gape, 13.5; tarsus, 34.5; middle toe and claw, 36.5; claw, 9.5.
- ✓ 2837. *Pipilo chlorurus* (Linn.) Baird. Green-tailed Towhee. ♂ ad. May 5, 1884. Fort Verde, Arizona. 179; 245; 74; 81; culmen, 13; gape, 13.5; tarsus, 25; middle toe and claw, 23.5; claw, 8.5. Irides, reddish-brown. Bill, with maxilla black, mandible pale blue, slightly tipped with black. Legs, pale grayish-brown. Feet and claws, dusky grayish.



- ✓ 2838. *Stragalinus pulchellus*  
Goldfinch. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
113; 206; 65; 48; culmen, 7.3; gape, 9; tarsus, 13;  
middle toe and claw, 14; claw, 4.7. Irides, hazel.  
Bill, yellowish-olive, tipped with black on both  
mandibles. ~~Legs and feet, brown.~~ Tarsi and toes, brown;  
claws, dusky brown. Under surface of feet, flesh-color.
- ✓ 2839. *Vireo virens pusillus*.  
♂ ad. May 5, 1884. Fort Verde, Arizona.  
123; 181; 53; 53; bill, measured from nostril, 6;  
gape, 14; tarsus, 20; middle toe and claw, 15; claw,  
4. Iris, dark brown. Bill, with maxilla olive-brown;  
mandible, bluish, tipped with white. Legs and feet,  
bluish-gray; claws, dusky. Sang a loud, pretty song.
- ✓ 2840. *Peterus bullocki* (Swainson) ♂ sp. Bullock's Oriole. ♂ ad.  
May 5, 1884. Fort Verde, Arizona.  
148; 312; 100; 83; culmen, 18; gape, 20.5; tarsus,  
24.5; middle toe and claw, 22.5; claw, 7. Iris, dark  
hazel. Bill, with maxilla blue-black; mandible, blue.  
Legs and feet, bluish-gray. Claws, dusky.
- ✓ 2841. *Dendroica nigrescens* (Townsend) Baird.  
Black-throated Gray Warbler. ♂ ad. May 5, 1884. Fort  
Verde, Arizona. 130; 199; 65; 56; bill, measured  
from nostril, 7.5; gape, 13; tarsus, 17.5; middle  
toe and claw, 13.5; claw, 4. Iris, hazel. Bill, black.  
Legs and feet, black, the latter yellowish below.
- ✓ 2842. *Geothlypis trichas* (Linn.) Caban. Maryland  
Yellow-Throat. ♂ ad. May 5, 1884. Ft. Verde, Arizona.  
133; 182; 55; 56; bill, measured from nostril,  
8.5; gape, 15; tarsus, 20; middle toe and claw, 18;  
claw, 5. Bill, blackish. Legs and feet, brownish  
flesh-color. Claws, pale brown. Irides, hazel.
- ✓ 2843. *Lunivireo solitarius* (Vieill.) Baird. Blue-headed Vireo.  
Vireo. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
143; 236; 74; 58; bill, measured from nostril, 7.8;  
gape, 16; tarsus, 21.5; middle toe and claw, 16.5;  
claw, 5. Irides, hazel. Bill, blue-black. Legs,  
feet and claws, bluish-gray.

- ✓ 2844. *Melospiza fasciata* Linn.  
Song Sparrow. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
162; 222; 68; 75; culmen, 13; gape, 13.5; tarsus,  
23.5; middle toe and claw, 21; claw, 6. Iris, hazel.  
Bill with maxilla brownish-black; mandible, bluish.  
Legs, feet and claws, brown, the tarsi (as is usual)  
being lighter than the feet.
- ✓ 2845. *Peteria virens longicauda* (Lawr.) Coues. Long-tailed  
Chat. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
190; 241; 76; 86; culmen, 14.8; nostril, 10.5; gape,  
18; tarsus, 27; middle toe and claw, 21.4; claw, 6.  
Irides, hazel. Bill, blue-black. Legs, feet and claws,  
bluish-gray, or flesh-color. Notes exactly like the  
Eastern Chat.
- ✓ 2846. *Peteria virens longicauda* (Lawr.) Coues. Long-tailed  
Chat. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
197; 258; 82; 91; culmen, 15; bill, measured from  
nostril, 10.5; gape, 19; tarsus, 28; middle toe and  
claw 23; claw, 1. Colors of soft parts the same as No. 2845.
- ✓ 2847. *Dendroica audubonii* (Townsend) Baird. Audubon's  
Warbler. ♂ ad. May 5, 1884. Fort Verde, Arizona.  
148; 239; 77; 62; bill, measured from nostril, 5;  
gape, 15; tarsus, 14.5; middle toe and claw, 17;  
claw, 5. Irides, hazel. Bill, feet and claws, black.
2848. *Myiarchus cinerascens* Lawr.  
♂ ad. May 5, 1884. Fort Verde, Arizona.  
218; 325; 101; 49; bill, measured from nostril, 15;  
gape, 26.5; tarsus, 23; middle toe and claw, 19;  
claw, 7. Bill, black. Legs, feet and claws, bluish-black.  
Iris, hazel.
- ~~2849~~ *Carpodacus* Not skinned!  
♂ ad. May 5, 1884. Fort Verde, Arizona.  
151; 238; 71; 62; bill, measured from nostril, 9.6;  
gape, 18; tarsus, 19; middle toe and claw, 14; claw,  
4.5. Irides, hazel. Bill, with maxilla brownish-  
black; mandible, yellow. Legs, feet and claws, black.
- \* 2849. *Zenaidura macroura* (Linn.) ♂ sp. Mourning Dove.  
✓ \* 2849. ♀ ad. May 5, 1884. Fort Verde, Arizona. (\* This & the following  
were a mated pair, killed at one shot by Mrs. E. W. Mearns.)

- 280; 455; 143; 127; culmen, 13; gape, 20; tarsus, 20; middle toe and claw, 24; claw, 6.
- ✓ 2850. *Zonotrichia carolinensis* (Linn.) Bp. Mourning Dove. ♂ ad. May 5, 1884. Ft. Verde, Arizona (\*Shot by C.W. M.). 298; 470; 150; 135; culmen, 13; gape, 20; tarsus, 21; middle toe and claw, 26; claw, 6.
- ✓ 2851. *Stelgidopteryx serripennis* (Aud.) Bp. Rough-winged Swallow. ♂ ad. May 5, 1884. Fort Verde, Arizona. 141; 312; 112; 55; bill, measured from nostril, 5; gape, 13; tarsus, 11; middle toe and claw, 15; claw, 5.
- ✓ 2852. *Sayornis nigricans* (Swains.) Bp. Black Pewee. ad. May 6, 1884. Fort Verde, Arizona. 185; 284; 85; 80; bill, measured from nostril, 11; gape, 20; tarsus, 19; middle toe and claw, 15.5; claw, 5.
- ✓ 2853. *Icteria virens longicauda* (Linn.) Coues. Long-tailed Chat. ♂ ad. May 6, 1884. Fort Verde, Arizona. 193; 255; 79; 88; culmen, 15.4; from nostril, 11.3; gape, 20; tarsus, 27; middle toe and claw, 22; claw, 6.
- ✓ 2854. *Geothlypis trichas* (Linn.) Caban. Maryland Yellowthroat. ♂ ad. May 6, 1884. Fort Verde, Arizona. 138; 187; 58; 60; bill, measured from nostril, 8; gape, 14; tarsus, 21; middle toe and claw, 18; claw, 5.
- ✓ 2855. *Tringoides macularius* (Linn.) Gray. Spotted Sandpiper. ♀ ad. May 9, 1884. Granite Creek at Whipple Barracks, Arizona. 191; 335; 101; 52; cul, 22; gape, 20; tarsus, 22; middle toe and claw, 23.5; claw, 7. Iris, hazel.
- ✓ 2856. *Zamelodia melanocephala* (Swainson) Coues. Black-headed Grosbeak. ♂ ad. May 9, 1884. Whipple Barracks, Arizona. 205; 322; 100; 83; culmen, 19; gape, 21.5; tarsus, 21; middle toe and claw, 24.5; claw alone, 7. Singing a clear, sweet song when captured.
- ✓ 2857. *Icterus parisorum*, Bonap. Scott's Oriole. ♀ ad. Point of Rocks near (4 miles from) Whipple Barracks, Arizona. May 10, 1884. 214; 310; 98; 98 (also); culmen, 22; gape, 23; tarsus, 23.5; middle toe and claw, 24; claw, 7. Shot in a pine-tree.

- ✓ 2858. *Zamelodia melanocephala* (Swains.) Coues. ♂ ad. May 10, 1884. Point of Rocks, four miles from Whipple Barracks, Arizona. 210; 325; 99; 85; culmen, 17; gape, 21; tarsus, 24; middle toe and claw, 24.5; claw, 7.
- ✓ 2859. *Zamelodia melanocephala* (Swains.) Coues. ♂ ad. May 10, 1884. Point of Rocks, four miles from Whipple Barracks, Arizona. 206; 305; 100; 82; culmen, 19; gape, 20; tarsus, 23; middle toe and claw, 24; claw, 5.
- ✓ 2860. *Zamelodia melanocephala* (Swains.) Coues. ♂ ad. May 10, 1884. 205; 325; 100; 81; culmen, 20; gape, 20; tarsus, 25; middle toe and claw, 25; claw, 8.8. Point of Rock near Whipple Barracks, Ariz.
- ✓ 2861. *Phainopepla nitens* (Sw.) Sel. Black-crested Flycatcher. ♂ ad. May 12, 1884. Fort Mojave, Arizona. 208; 302; 92; 102; culmen, 12.3; bill, measured from nostril, 8.5; gape, 17; tarsus, 19.5; middle toe and claw, 20.3; claw, 6. Iris, red. Bill, legs, feet, and claws, black.
- ✓ 2862. *Pipilo aberti*, Baird. Abert's Towhee. ♂ ad. May 12, 1884. Fort Mojave, Arizona, on the Colorado River. 228; 289; 87; 112; culmen, 16.5; gape, 17; tarsus, 29; middle toe and claw, 28; claw, 9.
- ✓ 2863. *Guiraca caerulea* (Linn.) Swains. Blue Grosbeak. ♂ ad. May 13, 1884. Fort Mojave, Colorado River, Arizona. 184; 290; 91; 78; culmen, 16; gape, 17; tarsus, 21; middle toe and claw, 25; claw, 7. Iris, hazel. Bill, with maxilla blackish, mandible bluish horn-color. Legs, feet and claws, very dark brown.
- ✓ 2864. *Guiraca caerulea* (Linn.) Sw. Blue Grosbeak. ♂ ad. May 13, 1884. Fort Mojave, on the Colorado River, Arizona. 286. *Icterus bullocki*. 180; 280; 89; 76; culmen, 16; gape, 16.5; tarsus, 21; middle toe and claw, 24; claw, 6.5. Colors of soft parts like No. 2864.
- ✓ 2865. *Icterus bullocki* (Swains.) Bp. Bullock's Oriole. ♂ ad. May 13, 1884. Fort Mojave, on the Colorado River, Arizona. 205; 313; 103; 58; culmen, 18; gape, 20; tarsus, 24; middle toe and claw, 22; claw, 7.



2866. *Catherpes mexicanus* (Sw.) Baird. Acridotheres acridotheres texensis  
Nighthawk. ♂ ad. May 13, 1884. Fort Mojave, Arizona.  
222; 543; 181; 115; culmen, 7.5; bill, measured  
from nostril, 5; gape, 25; tarsus, 14; middle  
toe and claw, 19; claw, 5.
2867. *Amphispiza flaviceps* (Sunder.) Baird. Yellow-headed  
Tit. ♂ ad. May 13, 1884. Fort Mojave, Colorado Riv., Arizona.  
117; 172; 53; 52; bill, measured from nostril, 7.5;  
culmen, 7; gape, 10; tarsus, 15; middle toe and claw, 12;  
claw, 4.
2868. *Amphispiza flaviceps* (Sunder.) Baird. ♂ ad. May 13, 1884.  
Fort Mojave, on the Colorado River, Arizona.  
113; 167; 50; 50; bill, measured from nostril, 7;  
culmen, 9; gape, 9.5; tarsus, 16; middle toe and  
claw, 13; claw, 4.5.
- ✓ 2869. *Phainopepla nitens* (Sw.) Sw. Black-capped Fly-  
catcher. ♂ juv. May 13, 1884. Fort Mojave, Arizona.  
195 x 277. Young of the year attended by its parents.
2870. *Geothlypis trichas* (Sw.) Coues. Dwarf  
Cowbird. ♂ ad. May 13, 1884. Fort Mojave, Arizona.  
200; 334; 108; 83; culmen, 16.5; gape, 16;  
tarsus, 24.5; middle toe and claw, 27; claw, 7.5.  
Iris, hazel. Bill, legs, feet and claws, black.
- ✓ 2871. *Icteria virens longicauda* (Sw.) Coues. Long-tailed  
Chat. ♂ ad. May 13, 1884. Fort Mojave, Arizona.  
190; 250; 77; 87; culmen, 14; bill from nostril, 10;  
gape, 18; tarsus, 27; middle toe and claw, 21; claw, 6.
- ✓ 2872. *Zamelodia melanocephala* (Sw.) Coues. Black-headed  
Brosbeak. ♂ ad. May 14, 1884. Peach Springs Cañon,  
near Diamond Creek, at the Grand Cañon of the Colorado.  
217; 327; 102; 86; culmen, 18; gape, 18.5; tarsus, 24;  
middle toe and claw, 24.5; claw, 7.
- ✓ 2873. *Passerina amoena* (Say) Gray. Lazuli Bunting. ♂ ad.  
Grand Cañon of the Colorado, Arizona. May 15, 1884.  
151; 235; 73; 64; culmen, 11; gape, 12; tarsus, 17;  
middle toe and claw, 19; claw, 6. Singing sweetly when taken.
- ✓ 2874. *Helminthophaga virginiae*, Baird. Virginia's  
Warbler. ♂ ad. May 15, 1884. Grand Cañon of the Colorado, Arizona.  
123; 197; 62; 49; bill, measured from nostril, 7;

- gape, 12; tarsus, 17; middle toe and claw, 14; claw, 4.
- ✓ 2875. *Junco macularius* (Linn.) Gray. Spotted Sand-  
piper. ♂ ad. May 15, 1884. Grand Cañon of the Colorado  
at the mouth of Diamond Creek. 195; 335; 103; 53;  
culmen, 23; gape, 25; tarsus, 23; middle toe and claw,  
23; claw, 4; bare part of tibia, 10.
- ✓ 2876. *Pipilo chlorurus* (Linn.) Baird. Green-tailed Towhee.  
♂ ad. May 15, 1884. Peach Springs Cañon, near the  
Grand Cañon of the Colorado, Arizona. Was singing  
a loud sweet song. 187; 253; 77; 86; culmen, 12.3;  
gape, 14; tarsus, 25; middle toe and claw, 24; claw, 8.
2877. *Myiarchus cinerascens* Sw. Flycatcher. ♂ ad. May 15, 1884. Diamond Creek, at  
the Grand Cañon of the Colorado, Arizona.  
217; 323; 98; 99; bill, measured <sup>from nostril</sup>, 14; gape, 24;  
tarsus, 24; middle toe and claw, 18.5; claw, 6.5.
2878. *Amphispiza bilineata* (Linn.) Coues. Black-throated  
Sparrow. ♂ ad. May 15, 1884. Shot on a high bench  
or mesa overlooking a long stretch of the Colorado  
River at the Grand Cañon to the north of Diamond  
Creek. 145; 213; 65; 66; culmen, 12; gape, 12;  
tarsus, 20; middle toe and claw, 17; claw, 4.5.
- No. 98. *Dryocopus lineatus* (Sw.) Coues. Woodpecker. ♂ ad.  
May 15, 1884. Peach Springs Cañon, Arizona. Iris, hazel.  
Bill, legs, feet and claws, black. 23 above skin, least breadth, 17.

*Bufo alvarius* Girard. — I caught one  
of these huge green Toads on the bank of  
the Colorado River in a patch of Arrow-  
-wood (*Tessera borealis*), on May 13, 1884.  
It was carried to Peach Springs, Arizona,  
and put in charge of the hotel keeper,  
who allowed it to escape while I was  
visiting the Grand Cañon.

List of works collated in the Appendix ( ) to my Birds of the Hudson Highlands.

- (1.) 1785. Pennant, J. Arctic Zoology.
- (2) 1792. Bartram, W. Travels Through North & South Carolina, Georgia, East & West Florida, etc. etc. Quoted from this, the 1st London edition.
- (3) 1799. Barton, B. S. Fragments of Natural History of Pennsylvania, etc., etc.
- (4) 1807. Vieillot, L. P. Histoire Naturelle des Oiseaux de l'Amérique Septentrionale.
- (5) 1808-14. Wilson, Alexander. American Ornithology.
- (6) 1809. Willson, S. Natural and Civil History of Vermont.
- (7) 1825-33 Bonaparte, C. L. American Ornithology, etc.
- (8) 1838. Bonaparte, C. L. The Genera of North American Birds and Synopsis of the Species found within the territory of the United States, systematically arranged in Orders and Families.
- (9.) 1831-39 Audubon, J. J. Ornithological Biography.
- (10) 1832-34 Nuttall, J. A Manual of the Ornithology of the United States and of Canada.
- (11) 1833. Emmons, E. A Catalogue of the Animals and Plants of Massachusetts.
- (12) 1839. Audubon, J. J. A Synopsis of the Birds of North America.
- (13) 1840. Nuttall, J. A Manual of the Ornithology.
- (14) 1843. Finsley, J. H. A Catalogue of the Birds of Connecticut arranged according to their natural families.
- (15) 1844. Baird, W. M. & S. F. List of Birds found in the vicinity of Carlisle, Leominster and County, Penn., etc.
- (16) 1844. De Kay, J. E. Zoology of New York, or the New York Fauna; etc.
- (17) 1844. Giraud, J. P. The Birds of Long Island.
- (18) 18 - . Proc. Boston Soc. Nat. Hist. [I did not collate the entire series.]

- (19) 1857. Keesley, J. Geology of Cape May County.
- (20) 1858. Baird, Cassin & Lawrence. U.S. Pa. R. Survey.
- (21) 1859. Jones, J. M. Wedderburn, J. W., and Hurd, J. L. The Naturalist in Bermuda.
- (22) 1860. Jackson, R. M. S. The Mountain.
- (23) 1864. Allen, J. A. Catalogue of the Birds found at Springfield, Mass., etc. < Proc. Essex Inst. IV, 1864, pp. 48-78.
- (24) 18 - . Proceedings of Essex Inst. I think have collated everything in it.
- (25) 1864-66. Baird, S. F. Review of American Birds, etc.
- (26) 18 - to . Annals of the Lyceum of Nat. Hist., N.Y. I think I have collated everything.
- (27) 1866. Lawrence, J. N. Catalogue of Birds on New York, Long, and Staten Islands and the adjacent parts of New Jersey. < Ann. J. N. H., N.Y.
- (28) 1875. Samuels, E. A. Ornithology and Ecology of New England.
- (29) 1868. Abbot, C. C. Catalogue of Vertebrate Animals of New Jersey < Cooke's Geology of New Jersey.
- (30) 1868. Coates, E. List of Birds of New Eng. < Proc. Essex Inst.
- (31) 1869. Turnbull, W. P. Bds. E. Pa. & N. J. Original ed.
- (32) 18 to . American Naturalist. collated to 1880.
- (33) 1869-70. Allen, J. A. Rarer Bds. Mass. < Ann. Nat.
- (34) 1872. Coates, E. Key to North American Birds.
- (35) 1872-7. Maynard, C. J. Bds. E. N. Am.
- (36) 18 to . Forest and Stream. First 16 volumes.
- (37) 1874. Baird, Brewer & Ridgway, N. A. B.
- (38) 1874. Coates, E. Bds. N. W.
- (39) 18 to . Field and Forest.
- (40) 1878. Ordum, D. S. Manual Vertebrates. 2nd ed.
- (41) 1876-77. Zentz, J. H. Life-Histories Bds. E. Pa.
- (42) 1877. Maynard, C. J. Naturalists Guide, revised ed.
- (43) 1877. De Kay, J. E. Our Birds of Prey.
- (44) 1878. Allen, J. A. First Bds. Mass. < Bulb. Ess. Soc.
- (45) 18 to . Familiar Science & Francis's Journal.
- (46) 1877. Whist, H. D. Land & Game Bds. N. Eng.





"Pectorals, ventrals and anal, orange-yellow, and only spotted along anterior border.

Sides of head below eye old gold, unspotted, except an area just below and behind the eye, where the spots are perfectly round and black and rather sparse.

Ventral aspect yellowish and unspotted.

Sides, to half an inch above lateral line, silvery-grayish; spotting very sparse below, (the spots not extending to within an inch of lower fins) growing more numerous above (X-shaped, some round). Above dark olive. Some scales with metallic bluish tips.

Flesh, reddish-salmon. Peritoneum whitish or colorless. Scales l. l. 120. D. 12; V. 10; A. 12; P. about 16. ~~16~~"

"A small one, 13 inches total length, differs in color only, being whitish in pectoral region below."

"Another trout 18 1/2 inches total length. To caudal, length 16 3/4. D. 12; V. 10; P. 16; A. 11."

The note-book in which the above notes on the Trout were jotted ("Physician's Hand Book") is dated (printed date) "1887". There is no date with notes.





Xanthocephalus xanthocephalus. - Nearly every spring there appeared in the corrals at Fort Verde, two or three individuals of this species, that were conspicuous amongst their brethren by reason of their unusually rich orange-colored heads. I made special efforts to secure one of these rare specimens, but only wounded one so that it flew off and died.

Often, as I have watched them eagerly feeding upon the scattered barley in the corrals, running fearlessly about amongst the stamping feet of three score lively cavalry horses, I have been reminded of the little newsboys who run so fearlessly amongst the flying vehicles of our eastern metropolis.

- 7th, 1884, Ft. Verde, Arizona
409. Peteria virens longicauda ♂ ad. Parent of set 3 No. 2986. 190; 244; 75; 85; nost, 10.4; cul, 15; gape, 19; tars, 26; Mte., 21; cl, 6. Sex carefully determined - ♂.
410. Peteria virens longicauda ♂ ad. 2987. 200; 260; 80; 92; nost, 10; culmen, 14; gape, 18.5; tarsus, 27; mte., 22; cl, 6.
411. Empidonax (sp. same as below) ♂ ad. 154; 229; 71; 66; nost, 10; gape, 18; tars., 17; mte., 14.5; cl., 5.3. Iris raw number. Not skinned.
412. Empidonax pusillus (Sw.). ♂ ad. Parent of set 3 No. 2988. 155; 217; 67; 66; nost, 10; gape, 18.5; tars., 17; mte., 14.3; cl., 5.
413. Empidonax pusillus (Sw.). ♀ ad. Parent of set 3 No. 2989. 149; 203; 66; 64; nost, 9.5; gape, 17.5; tars., 16; mte., 13.5; cl., 5.
414. Merula migratoria ♂ ad. \* Shot by E. W. M. in Arizona. 2990. 270; 360; 110; 130; cul., nost, 11; cul., 19; gape, 26; tarsus, 32; mte., 29. Cl., 8.
- Notes. - Sandwich haliaetus carolinensis. - One seen to-day.
- Vipilo sterti. - Saw the first young on wing. It flew with ease across the Verde River. A nest containing four young a few days old, one containing two eggs, and a third containing a single fresh egg, were found.
- Peteria virens longicauda. - A nest containing three eggs, probably a full set, was taken with the male parent (No. 409).
- Vireo. - A nest containing one egg and that of a Cowbird was found, and the latter taken.
- Empidonax. - A set of three eggs was taken with both parents.
- Sayornis sayna. - A set of four eggs was taken on the porch of the post hospital.



June 10th, 1884, Ft. Verde, U.S.

415. *Zonotrichia coerulescens*. ♀ ad. Parent of set of 5, No. 2991. 172: 279: 85: 72: cul., 17: gape 18.5: tars., 22: mte., 23.5: cl., 7. Iris dark hazel. Bill, with maxilla dusky, olive-brown; horn-color at sides at base; whole of mandible, horn-color. Leg 2, feet and claws, brown.

416. *Helminthophaga luciae*. ♂ ad. This specimen was shot for identification. From its actions, I knew it had a nest or young in the vicinity. 109: 172: 55: 42: no. 1, 6.5: gape, 10: tarsus 17: mte., 14: cl. 4. Irides, hazel. Bill, with maxilla blackish; mandible horn-color, bluish on sides. Legs and feet brownish plumbeous; claws, brownish black.

*Zonotrichia coerulescens*. - Found my first nest of the Blue Grosbeak. The male bird could not be found. The nest was placed in a willow sapling within a few yards of the Verde River in a thicket of small willows growing amongst some small ash-trees. The female at my approach dropped from the nest which was about six feet above the ground straight to the ground and then flew off with a chirp and whining sound, and, after eyeing me from a branch discontentedly for some time, approached quite close to the nest with hostile demonstration restlessly flitting from branch to branch of the willows and grape vines by which they were overgrown. The eggs were nearly ready to hatch. One of them measured 17 X 23 m.m.\*

\*The others measured 17.7 X 23, 17 X 23.5, 18 X 23. They were not preserved.

all were a pale blue in color. The nest I have preserved and shall attempt to extract the embryos by maceration. *Icteria virens longicauda*. - The (that's) nest found yesterday a few yards from the Blue Grosbeak's above described still contained only three eggs & was as before zealously guarded by both parents. I took the nest - set of three eggs, but did not molest the old birds.

*Thryomanes bewickii*. - Took a set of very darkly large spotted eggs. One of the five was broken aside extracting the embryo. Was built in a mesquite, 2 feet from the ground, near the engine-house.

The parents never sit on their nests when the sun is shining, and seldom show any solicitude when their nests are being examined, unless calls of alarm or other artifices are resorted to, to attract them. They are very shy birds when resting.

*Ardea herodias*. - This species was seen to day, and is doubtless breeding beside the Verde, where I have searched in vain for its nest.

June 11th, 1884. Ft. Verde, Ariz.

417. *Archilus alexandri* ~~hummingbird~~ ♀ ad. Parent of two young in nest. 2993. 101: 121: 46: 31: cul., from feathers, 21: gape 25: tars., 5: mte., 7: 3.

418. *Vireo pusillus* ♀ ad. 2994. 130: 180: 56: 54: no. 1, 7: gape 14: tars., 19: mte., 14: cl., 5.

419. *Phainopepla nitens* ♀ ad. 2995-209: 295: 92: 100: cul., 14: no. 1, 8.2: gape 18: tars., 19: mte., 19: cl., 5.

420. *Phainopepla nitens* ♀ ad. 2996. 202: 292: 95: 93: cul., 12.5: no. 1, 8.8: gape 18: tars., 18: mte., 20: cl., 7.

421. *Phainopepla nitens* ♂ ad. 2997. 205: 290: 92: 99: cul., 11.5: no. 1, 8: gape 17: tars., 19.5: mte., 18.5: claw 5.

422. *Phainopepla nitens* ♂ ad. 2998. 200: 297: 90: 97: cul., 12: no. 1, 7.5: gape 17: tars., 19: mte., 19: cl., 5.5.

2999-423. *Coccyzus bilineatus*. ♂ juv. Young still with parent.

3000-424. *Helminthophaga luciae*. ♀ juv. Young still with parent.

3001-425. *Phainopepla nitens* ♂ ad. 200: 286: 88: 93: cul., 11: no. 1, 7: gape 16: tars., 18: mte., 19: claw 5.

(June 11, 1884 - Continued.)

426. *Pinophea nitens* ♂ ad.  
 ✓ 3002. 209: 245: 93: 102: cul, 13: nost, 8: gape, 5: tars, 18: Mte, 19: claw 6.
427. *Goniaphea cœulea* ♀ ad.  
 ✓ 3003. 185: 275: 83: 70: cul, 16: gape 17: tars, 21: Mte, 22: cl, 7.
428. *Myiarchus crinitus cinereus* Ad.  
 3004. 225: 335: 102: 102: nost, 16: gape 29: tars, 24.5: Mte, 22: cl. 7.5. Irides, brown. Bill, brownish-black. Legs, feet and claws, plumbeous-black.
429. *Pyrranga ludoviciana* ♂ ad.  
 ✓ 3005. 189: 298:
430. *Pyrranga ludoviciana* ♀ ad.  
 ✓ 3006. 182: 286: 92: 73: cul, 16: nost, 11.5: gape 20: tars, 21: Mte, 20: claw 6.
431. Killdeer. ♀ ad.  
 ✓ 3007. 254: 520: 160: 93: cul, 22: gape 24: tars, 36.5: Mte, 27: claw 6. tibia 20.
432. Hummingbird. ♂ juv.  
 3008. Nestling of which No. 417 was the ♀ parent. Nest Preserved also
433. Hummingbird ♀ juv.  
 3009. Nestling of which No. 417 was the ♀ parent.
- Notes. - A nest containing half-grown young of the Lazuli Finch *Spiza adumna* was found in a crotch of ~~Sumach tree~~ <sup>6 feet</sup> from the ground. The female was very bold and came about with hostile demonstrations and a sharp note of anxiety and distress; but the male, who had been singing near the nest before its discovery, could not be seen although I tried to call it to the nest.
- Pinophea nitens*. - This bird is evidently breeding here, as one of the females <sup>boiled</sup> showed evidence of oviposition, while the other contained two good sized eggs, which would have been deposited in a day or two.
- Yellow-headed Titmouse*. - The second nest which I found June 5th was deserted and my careful and extended search failed to discover any of the nests or birds. The species is found south of us, down the Valley, as I saw a nest which

(June 11, 1884 - Continued.)

was seen but could not be secured. They were worried by the passing Arkansas Flycatchers.

*Umbitanga* ~~unidentified~~ <sup>unidentified</sup>. - One was seen but could not be secured. They were worried by the passing Arkansas Flycatchers.

*Umbitanga* ~~unidentified~~ <sup>unidentified</sup>. - One was seen on the 11th on Beaver Creek, near the border.

*Umbitanga* ~~unidentified~~ <sup>unidentified</sup>. - A nest was seen in a <sup>unidentified</sup> bush about four feet from the ground. It was an old nest, doubtless of *Hesperisyllus* ~~unidentified~~ <sup>unidentified</sup> *crissalis*, and ~~unidentified~~ was but little repaired. It had become matted and hardened by exposure during the winter and the cavity had sagged down to a mere groove at one side of the nest which had been beaten down to an opening as seen. A few sticks had been placed around the edge of this nest to keep the eggs from being out. The egg was fresh, and unincubated. X

It would have been left for a complete set, but the locality was such that I feared not being able to find the nest again. No birds were seen at the nest, but one was seen half a mile from it. I have only seen one other here at border - the one I shot & preserved. My wife saw a pair down the Valley, and I also saw a single one at Fort Mojave.

*Vireo*. - The young of this species are now on wing, led about by their parents, who manifest much anxiety for their safety, and frequently utter a call resembling the Catbirds (*M. carolinensis*).

*Prospiza bilineata*. - The young are flying in many cases but are still with their parents who exercise great care of them.

*Prospiza melodia*. - One or two pairs were seen along Beaver Creek. The species is only found where there is water, and is rather commonly seen along the secluded sets of the banks of the river, but I have been unable to discover its nest. I have seen no young as yet.

*Chondestes grammacus*. - Found a nest containing two young just out of the shell & one egg. Nest some 10 feet from the ground under a spreading weed. Parent started from home a few feet.





437. *Icteria virens longicauda* ♂ ad.  
 3013, 213; 272; 77; 84; cul., 14.5; wing, 10; gape, 18;  
 tarsus, 25; mte., 20; cl., 6.6.

Notes (June 15th): *Herminia virens* *longicauda*. - This is a common species but my efforts to discover where it builds its nest have been unavailing. Hundreds of young birds accompanied by their parents may be seen in any thicket or mesquite-covered area.

June 14th, 1884. Ft. Verde, Arizona.

438. *Amphispiza crinitus cinerascens*. ♂ ad.  
 3014, 220; 330; 99; 99; wing, 14.5; gape, 26.2; tarsus, 23;  
 mte., 18; cl., 7.

This species is quite numerous along the Verde; but, owing to the difficulty of climbing the large cotton-woods in the dead branches of which it builds its nest, I have failed to secure its eggs. The young birds are just beginning to fly.

*Lanius ludovicianus excubitorides*. - Although so abundant during the migration, this Shrike, at least here in the river bottom has become uncommon. I found one pair to-day, but did not find the nest which their actions told me must be in the neighborhood. Will look again when more at leisure.

*Sturnella magna neglecta*. - A pair of these birds are without doubt nestling near the Verde River a little way above the fort, but I did not discover the nest.

Red Flycatcher. - A female of this species flew from the lower branch of a cottonwood tree near the Verde. I looked in the tree for its nest but did not find it. In passing the same tree returning later that afternoon, the bird flew from the branches of the same tree over my head. I ascended the tree and failed to discover its nest, although I secured the nest of *Leopodenus frontalis* with 5 eggs, and saw a Boar's nest (*Sciurus*) containing 2 incubated eggs.

The male bird was not seen, and the female was excessively shy, hovering in a corner in advance, perching upon the lower dead branches of cottonwoods and dead bushes, flying out of sight if too closely followed.

*Phainopepla nitens*. - A male bird seen from a cottonwood near the river, and I went to the tree hoping to discover its nest. It was beneath the tree. I gave a chirp, when the male flew from his nest and hovering about the tree in a short circle flew off to the top of the nearest cottonwood tree by the river. The male hovered and gluttered over the tree while I was making the ascent, but both birds were suspiciously silent. I found the nest to be a very artless and careless structure saddled upon a horizontal fork of a ~~tree~~ limb of the cottonwood fifteen feet above the ground. It was small, flattened, and when removed showed a large hole on one side which had been occupied by one branch of the fork. The eggs were two in number, and they and the nest are described in detail in my book containing "Descriptions of Nests & Eggs." When the male descended the tree I fired a shot at the male as he flew overhead but missed. I followed the pair from tree to tree until they alighted in the adjoining bushes, where I fired again at the pair, but owing to badly loaded cartridges, missed again, and then the birds disappeared, badly frightened, in some dense mesquite bushes a long way off, but afterwards returned to the tree where the nest had been. I tried to secure them again on my return but they had become shy as they habitually are, and I did not procure a shot.

*Harporhynchus cyssalis*. - A nest was found upon a horizontal bough of a large mesquite bush, where it made a conspicuous sight, owing to its dark and exposed position. It was well built and contained



two blue eggs, resembling those of a Robin. They seemed to me larger & much paler in color than the set of three which I found in a dense "sage" bush on June 3<sup>rd</sup>, and which was left until the 5<sup>th</sup>, when the eggs were found to be gone. I then said I would not again search for a complete set of new eggs in hope of getting a complete suite; but I kept the two eggs, notwithstanding this resolve, which I had since carried out in the case of the Road-runner's nest which contained a single fresh egg.

*Mimus polyglottus*. - The first young insect-eating birds are now emerging from their nests in company with their parents. I found a nest to-day containing 3 eggs, and a set of four which I took, but broke all but one when riding home, with them in my fish-basket. The latter nest was built in an open mesquite in plain view from a travelled road.

*Lanius californicus californicus*. - This bird is still present, no doubtless, breeds on the Verde. Saw one today. *Coccyzus americanus* was heard calling among the tall cottonwoods of the River.

*Geothlypis trichas* June 15, 1884. Ft. Verde, A. T.

439 3015 *Oryzopsis* ~~fulgens~~. - Mr. Vogdes brought me this nest, with the parent which he shot beside the nest. The eggs measure, respectively, 13 x 9 and 13 x 9.5 mm. The nest measures in width externally 43, internally 25; in depth externally 37; internally 20. Eggs as usual pure white, incubation begun, so that only one egg was completely emptied of its contents. The other was filled with arsenic to preserve it.

♀ ad.  
107; 124; 48; 32; bill from frontal feathers 20; gape, 25; tarsus, 5; mte., 7.5; cl. 3.3. Parent of the above nest and two eggs

## Sceloporus

No. 2. *camellorum*. - June 15, 1884. Ft. Verde, Arizona. Ad.  
Total length, 277; cul., 53; nose to anus, 155; hind foot to end of tail, 152. Horns, 19; skin foot in side of claw, 23; longest claw, 4; leg, 25; hind foot including claw of longest toe, 31; claw, 3.3. ♀ ad.  
Shot in the top of a large bush.

June 16<sup>th</sup>, 1884. Fort Verde, A. T.

439a. *Oryzopsis* ~~fulgens~~ *rubinus mexicanus* (Sci.) Coues.  
✓ 3016. *Thryomanes bewickii*. ♀ ad. Parent of Set No. 2-1.  
Shot from her nest and two eggs, which were taken and preserved, save one egg broken in getting out of nest. I believe this is the first authentic nest and eggs ever taken of this rare Flycatcher.  
152; 255; 82; 65; nost., 9.6; gape, 18.5; tarsus, 16.5; mte., 14; cl., 4. Iris, hazel. Bill, legs, feet and claws, brownish-black.

440. *Phainopepla nitens*. ♀ ad. Parent of Set No. 2.  
✓ 3017. Shot in next tree to the one in which the nest was taken. The male was also present, but too shy for capture.  
194; 287; 88; 89; cul., 11.5; nost., 8; gape, 18; tars., 19; mte., 19; cl., 6. Irides pale red, and bill & feet less black & more brown than in the male.  
441. *Geothlypis trichas* ~~fulgens~~ *crissalis* ♀ ad. Parent of No. 3018.  
Set 2-4, shot beside nest. 300; 313; 95; 133; cul., 38; nost., 30.5; gape, 41; tarsus, 32; mte., 31; cl., 9. Irides, brownish yellow. Bill, black; legs & feet, plumbeous brownish-black; claws, blackish.

442. *Phainopepla nitens*. ♀ ad.  
3019. 204; 297; 92; 100; cul., 13; nost., 8; gape, 18; tarsus, 18; mte., 19; cl., 5.5.

443. *Lanius ludovicianus excubitorides* ♀ ad.  
✓ 3020. 225; 319; 97; 102; cul., 16; gape, 24; tarsus, 27.5; mte., 23.5; cl., 8. Irides, hazel. Bill, black, tinged with brown on lower mandible at base. Legs & feet, brownish-black; claws, blue-black.

✓ 444. *Lophortyx gambeli* ♀ ad. Ft. Verde, A. T.  
✓ 3021. 250; 386; 114; 107; cul., 12; gape, 14; tarsus, 33; mte., 25; cl., 9.

June 16, 1884.

445. *Icterus bullocki*. ♂ ad.

✓ 3022. 196; 322; 104; 76; cul., 20; gape, 21.5; tars., 23; mte., 22.5; cl., 6. Black markings of tail, rather obsolete.

✓ 446. *Vireo* ♂ ad.

✓ 3023. 120; 180; 55; 52; nost., 2; gape, 13.5; tars., 19; mte., 14; cl., 5.

447. *Stranella neglecta* — ? juv. Well feathered ✓ 3024, and able to take care of itself as indicated, it was doing. 230; 380; 109; 67; cul., 27; gape, 30.5; tars., 38; mte., 33; cl., 7. Irides, dark brown. Bill with maxilla dusky-brown; mandible, flesh-color slightly tipped with dusky. Tarsi, flesh-color; feet brownish-flesh-color; claws light reddish-brown. This specimen may be taken as a fair example of a well-developed first plumage.

448. *Geothlypis trichas* ♂ juv. Well-feathered ✓ 3025 and taking care of itself. 305; 327; 100; 15.5; cul., 30; nost., 2.2; gape, 35; tars., 35; mte., 30; cl., 8. Iris, brownish-white; Bill, black. Legs, feet dusky plumbeous; claws, brownish-black. The bill legs & feet are about the same color as the adult. The plumage is fresh and soft, contrasting strongly with the worn and faded feathers of the old birds at this season. The only difference in plumage between the young and the adult, consists in the much darker, <sup>in first full plumage</sup> ~~richer~~ & brighter plumage generally of the young bird. The tail being blackish; but doubtless the old bird in new dress would present as bright an appearance. If any tangible differential characters can be ascribed to the young bird, they may be summed up by saying that the tail is darker, the colors generally brighter and the markings more sharply defined, while the red is <sup>more</sup> ~~less~~ confined to the crissum instead of slightly tinging the posterior portion of the belly as is usual (?) in the adult. The sides are, in birds just out of the nest whitish-brown, gradually becoming paler, and finally assuming the yellowish color which never becomes bright yellow even in the adult. In birds just out of the nest, the bill is not quite

June 16, 1884.

black, and the legs & feet are, in most more, paler than in the adult. In the whole the young ~~the~~ of this species are strikingly similar to the adult.

449. *Geothlypis trichas* ♂ juv. Young still ✓ 3026, with male parent. Length 215; cul., 21; gape, 28; tail 82. This is a young bird of the same pair who nest & 4 eggs I took to-day. The male bird accompanied the young, while the female divided her attention between the new nest & her first brood. The whole family remained about the new nest which I discovered on the 14th, when it contained two eggs.

450. *Geothlypis trichas* ♂ juv. just from nest, ✓ 3027, accompanied by both its parents.

451. *Lepus californicus* ♂ juv. Young Jack Rabbit.

~~Notes~~ Notes. — The Crimson Flycatcher (*Pyrocephalus rubineus mexicanus*) was again started from the same Cottonwood tree in which it was found two days before. It was even more shy than before. I could not get any where near it, nor even walk towards but it would fly to a more distant perch. It alighted on low dry bushes and stumps near the cottonwoods, flying farther off at every attempt to approach it until soon lost sight of. Returning later to the tree it was again found and it eluded me again. I then sat down in the shadow at the foot of a large cottonwood within range of the tree supposed to contain the nest. I waited perhaps a third of an hour when the little bird flew to the tree and after hopping from branch to branch for a moment, sat upon her nest which was placed in the rather large dry fork of a low branch of the cottonwood at a height of about fifteen feet from the ground. I gave a chirp which brought her from her nest to a dry twig near it, where I shot her. She then ascended and climbed out upon the long bough upon which the nest was placed.



momentarily expecting the branch would crack suddenly off and precipitate both myself & the eggs to the ground beneath.

I was barely able to touch the nest by reaching forward, and may perhaps be pardoned for dropping from the tips of my fingers the first egg of this beautiful Flycatcher that a naturalist's hand ever touched. I dropped to the ground & was utterly demoralized, but it appeared, when in the nest to be precisely like the one preserved.

*Lanius ludovicianus excubitorides*. - A female flew from a thicket and was shot. Her body bore marks of recent parturition, but the nest was not in the thicket whence she flew and could not be discovered.

Later, a nest was found at a distance from this spot which was built on top of a large, dense, dead bush, armed with thorns, and it contained four young nearly ready to leave their nest.

*Pyrranga ludoviciana*. - One or two seen. The species was, for the most part, departed.

June 17<sup>th</sup>, 1884. Ft. Verde, A.T.

452. *Spiza amoena*. ♂ ad. 144; 235; 74; 60; cul., 11; 3028, gape, 13; tarsus, 17; uita, 18; cl., 5.3. Iris, hazel. Bill bluish-black. Legs, feet & claws, brownish-black.

453. *Soniaphaea coerulescens*. ♂ ad. 13029, 188; 290; 89; 78; cul., 16; gape, 18.5; tars., 21; uita, 24; cl., 7. Iris, dark brown; Bill, with maxilla blue-black; mandible bluish horn-color. Legs, feet & claws purplish brownish-black.

454. *Soniaphaea coerulescens*. ♀ ad. 13030 174; 274; 83; 71; cul., 15; gape, 18; tarsus, 20; uita, 22.5; cl., 6.5. Iris, hazel. Bill, with maxilla brownish-black; mandible bluish-horn-color. Legs, feet, and claw brownish-black.

455. *Chondestes acutipennis texensis*, Lawrence. ♂ ad. 3031. 230; 550; 190; 114; cul., 7; most, 5.5; gape, 26.5; tarsus, 15.5; uita, 19.5; cl., 5.5. Irides, brown. Bill black. Legs & feet, fleshy-brown; claws, blackish. This bird was inhabiting a level plain, destitute of bushes, save a few small scragged ones just where the Night Hawk was shot. I was flying about in the bright glare of the sun during the hottest part of the day.

June 18<sup>th</sup>, 1884. Ft. Verde, A.T.

*Spiza amoena*. - Another pair found breeding up Beaver Creek, near the stream.

*Phainopepla nitens*. - A nest was found in the forked top of a small mesquite bush up Beaver Creek. The nest was difficult to discover although the male bird, although shy and refusing to let me approach near enough for a good shot, would not leave the vicinity for any length of time. The female withdrew and was even more shy than the male. With much difficulty I secured the male by using large shot at long range, and, after following the female for a long time I finally secured her by a lucky wing shot, using an <sup>two</sup> cartridge. The <sup>two</sup> eggs were preserved with the nest. Incubation was considerably advanced.

A second nest was found in a fork of a tall sumach-tree, fifteen feet from the ground. It contained two perfectly fresh eggs. The female was shot & mortally wounded but fell in a thicket of sumach-trees overgrown with grape-vines, and could not be found. The male bird was not seen near the nest. I unfortunately broke one egg. Thus my first three nests were located in as many different species of trees, showing that the birds have no very marked preference in that direction, but are governed principally by their surroundings. *Icteria virens longicauda*. - A set of 3 fresh eggs was taken with the nest. It was placed in a grape-vine overhanging a water-course. Another

nest was built in rather exposed situation, in the fork of a sumach tree, six feet from the ground, and contained four eggs, about to hatch. *Zenaidura carolinensis*. - A set of two eggs was taken from the branches of a sumach about seven feet from the ground. So gentle was the sitting parent that I might have caught her in my hand, as I sat in the saddle.

*Icterus cucullatus*. - A nest was found attached to the extremity of a lowest branch of a large sycamore tree, where it was entirely out of reach. I shot the male parent to make my identification of the species absolutely certain, since I was unable to reach the nest.

*Sporophaga gambeli*. - Fr. Vogles saw a set of Quail's eggs which were taken on a rancho down the Valley on June 14th. I have failed to find a nest, although the birds are abundant generally dispersed. They are for the most part mated and found in pairs, the male singing in a bush; but small flocks of four to six birds are still frequently seen.

*Chondestes grammacus*. - The nest found a few days since was deserted to-day; and I also saw young on wing across the River.

*Tyrannus vociferans*. - Have seen but one brood on wing, June 16th.

*Sayornis sayus*. - The young have been flying about since the first week in June.

*Pipilo aberti*. - The first broods have in most instances left the nests, & many pairs are nestling again.

456. Verdin; Yellow-headed Cuckoo. ♂ juv.  
3032. 106; 168; 50; 46; cul., 8.5; gape, 9. Tarsus, 15.5; mte., 12.5; cl., 4.6. Irides, dark brown. Bill, with basal half of mandible & angle of mouth, yellow; remainder dusky brown. Legs & feet plumbeous; claws brown. This is a typical specimen of a well-developed first plumage.

457. Black-chested (throated), Long-tailed Lizard. ♂ ad.  
3 Total length, 181; between nostrils, 51; anus to tip of tail, 100; forearm, 8.5; fore foot, 13.5; longest claw, 4. Leg, 15; hind foot, 30; longest toe and claw, 21; claw, 3.5; thigh, 17. This is the commonest lizard at Mojave.

458. *Helminthophaga luciae*. ♀ ad.  
✓3033. 111; 169; 52; 42; nost., 7; gape, 11; tarsus, 15; mte., 12; cl., 3.6. Irides, brown. Bill, blackish, with sides & base of mandible horn-color. Legs feet and claws dusky plumbeous.

459. *Icterus cucullatus*. ♂ ad.  
✓3034. 209; 280; 88; 95; cul., 20.5; gape, 21; tarsus, 22; mte., 21; cl., 6.

460. *Phainopepla nitens*. ♂ ad. Parent of set  $\frac{B}{2}$  No.  
✓3035. 209; 298; 93; 101; cul., 12; nost., 8; gape, 16; tars., 19; mte., 18; cl., 5.

461. *Phainopepla nitens*. ♀ ad. Parent of set No.  $\frac{B}{2}$ .  
✓3036. 191; 274; 83; 88; cul., 12; nost., 8.5; gape, 17; tars., 18; mte., 18.5; cl., 5.

462. *Merula erythrogastra*. ♂ ad.  
✓3037. 186; 337; 124; 96; cul., 9.5; nost., 6.5; gape, 16; tars., 11; mte., 17.5; claw 5.3.

463. *Goniaptes corulea*. ♂ ad.  
✓3038. 181; 283; 89; 74; cul., 16; gape 18.5; tars., 20.5; (181) mte., 24; claw 7.

464. *Phainopepla nitens*. ♂ ad. Parent of set  $\frac{D}{3}$  No.  
✓3039. 198; 291; 89; 100; cul., 13; nost., 8; gape 17; tars., 18; mte., 19; claw 5.

465. *Phainopepla nitens*. ♀ ad. Parent of set  $\frac{D}{3}$  No.  
✓3040. 202; 286; 87; 96; cul., 12; nost., 8; gape, 18; tars., 17.5; mte., 19; cl., 6.

466. *Phainopepla nitens*. ♂ ad. Parent of set 2 young No.  
✓3041. 194; 280; 90; 97; cul. only 10; nost., 6.5; gape, 16; tars., 17; mte., 17; cl., 5.5. Bill, etc. unusually small.

467. *Phainopepla nitens*. ♀ ad. Parent of set 2 young No.  
✓3042. 206; 298; 92; 101; cul., 12; nost., 9; gape, 18; tarsus, 19; mte., 19; cl., 5.5. Irides light red. Bill, legs, feet & claws black with slight brown tinge.



468. *Phainopepla nitens*. ♂ ad. Parent of Set  $\frac{3}{3}$ . No  
 ✓ 3043, 204; 288; 89; 100; cul., 13; nost., 8.5; gape, 18;  
 tars., 18; mte., 18; cl., 5.
469. *Phainopepla nitens*. ♂ ad. Parent of Set  $\frac{3}{2}$ . No  
 ✓ 3044, 115; 352; 96; 105; cul., 12; nost., 8; gape, 17.5;  
 tarsus, 18.5; mte., 18.5; cl., 5.
470. *Phainopepla nitens*. ♀ juv. Young of the year.  
 ✓ 3045, 184; 280; 85; 86; cul., 12; nost., 7.5; gape, 17;  
 tarsus, 18; mte., 18.5; cl., 5.5. Irides, reddish-brown.  
 Bill, blackish; yellow narrowly along basal two-  
 thirds of commissure & at angle of mouth.  
 Legs, feet & claws, blackish. This is a good  
 example of a developed first plumage.
471. *Phainopepla nitens*. ♀ juv. Small nestlings of  
 ✓ 3046, which Nos. 466 & 467 were parents.
- ✓ 3047 & 472 *Phainopepla nitens*. — juv. do do do do.
- ✓ 3048 & 473 *Ayialitis vociferus*. ♀ ad.  
 252; 505; 155; 96; cul., 22; gape 23.5; tars., 35;  
 mte., 25; claw 5. Bare part of tibia, 20.
- Harpodichthys crassalis*. — A nest was found  
 in a dense haw bush 2 feet from ground which  
 contained 4 young ones about a week old.
- Pyrocephalus rubinus mexicanus*. — Mr. Vogdes  
 shot at one beside the Verde, at Jordan's crossing.
- Chordeiles acutifrons texensis*. — A number were  
 seen flying about in the evening twilight.
- Nyctardea grisea macrura*. — Yesterday and  
 two days before, towards evening I saw a Heron  
 which was doubtless of this species, though not  
 positively identified.
- Musk Turtle*. — One found walking in the  
 sand an hundred feet from the Verde. It was  
 a large one, with clean shell & good markings,  
 but escaped from my pocket while I was  
 riding. *Kinosternon soroeciense* Le Conte.
- Chondrotes grammaca*. — Young seen flying.
- Phainopepla nitens*. — Four nests were found.  
 In each instance the male bird was much  
 the boldest in looking after its nest, flying

nervously from one mesquite bush to another,  
 always silent, however, save a "warbled" note  
 that uttered a low chirp when caught.

The females did not leave the locality but  
 were exceedingly shy and undemonstrative.  
 The four male birds were procured with  
 little difficulty, but only two females could  
 be captured; but I may get them tomorrow  
 as they were the only <sup>two</sup> pairs in the locality where  
 the last two nests & 2 males were procured &  
 they could probably be identified from the  
 locality where found.

The first nest contained 3 eggs, the second,  
 two very young birds, the third, 3 eggs, and  
 the fourth, two eggs. All of the nests were  
 built in mesquite bushes, in a fork. They  
 were all found on the level bottom near  
 the Verde River.

June 20th, 1884. Ft. Verde, Arizona.  
*Empidonax treillii pusillus*. — Three nests were  
 examined. One in a willow ten feet from the  
 ground contained 3 eggs nearly hatched. The  
 second, in the <sup>lower</sup> fork of a little cottonwood had  
 a single egg in it. A third was in a willow  
 sapling 6 feet high & contained large young ones.  
*Zenaidura carolina*. — On June 19th half grown  
 young were found in the nest of a bird that sat  
 so closely that she might easily have been taken  
 from the nest by hand. The young are clothed  
 with long pin-feathers looking like wires and  
 resembling the young of the Cuckoos (of the genus  
*Coccyzus*?). Young Doves were also found today  
 as well as a nest containing a single fresh egg.

*Phainopepla nitens*. — Found a nest in the  
 fork of a tree which resembles a willow, which  
 grows plentifully along the streams here, bearing  
 a handsome flower like the catalpa blossom  
 in shape, and a long pod. The nest was  
 twelve feet from the ground. This set,  $\frac{3}{3}$ ,

contained 3 eggs. I shot the male parent (No. 435) on June 13th, but failed to discover the nest, but found it to-day, deserted.

Another nest (Set 2 - No. ) was found in a cedar upon a hill side, near a sluice. The nest was placed in an upright fork of the cedar branch, and both parents were guarding it. I wounded the female and she fell dead across the sluice where I <sup>was unable</sup> to recover <sup>and</sup> ~~it~~; but the male bird was taken. As usual the female was much more shy than her mate.

*Melospiza americana*. - One was found in the sluice at the Brewery. I rode up to the edge of the bank and saw it within a few feet of me, swimming beside some Cat-tails (she swam a little way, then rose and alighted upon the ground on the opposite side and ran a long way up the stream with great swiftness clucking loudly. I am told that they are abundant here in winter, and that a number breed along the river in the Lower Verde among the ranches.

*Ceryle mexicanus*. - Mr. Davis who lives a few miles down the River saw several Water Ducks, a bird well known to him, on the Verde River near his rancho east of Springfield.

474. *Sayornis nigricans*. Black Flycatcher ♀ ad.  
✓3049. 181; 284; 87; 83; nost., 10.6; gape, 20; tars., 17; mte., 15; cl., 5. Irides rich dark brown. Bill, black, brownish at base of mandible; mouth, yellow. Legs, feet & claws, black. Its abdomen & itifies to its having recently engaged in parturition.

475. *Melospiza melodia* ~~fulva~~ ♂ ad.  
✓3050. 165; 220; 66; 77; cul., 13; gape, 14; tars., 23; mte., 21; cl., 5.5. Graduation of tail, 8. Irides brown. Bill with maxilla black, with a narrow olivaceous line along lower margin. There is a corresponding line of olive along the upper border of the mandible, which is otherwise bluish horn color. Legs, feet and claws, brown.

476. *Melospiza ater obscurus* ♂ ad.  
3051. 189; 220; 101; 77; cul., 16; gape, 16.5; tars., 23; mte., 24; cl., 5. Irides brown. Bill, legs, feet & claws, black. It appeared with albinism, & greatly enlarged.

477. *Phainopepla nitens* ♂ ad. Parent, Set 3-1 No.  
✓3052. 208; 273; 98; 100; cul., 12; nost., 8; gape, 15; tars., 18; mte., 15.5; cl., 19; cl., 6.  
478. *Phainopepla nitens* ♂ ad. Parent of Set 3-1 No.  
✓3053. 207; 277; 98; 100; cul., 12; nost., 7.5; gape, 17.5; tars., 17.6; mte., 18.5; cl., 5.

June 21st 1884. Ft. Verde, A.T.

479. *Sayornis nigricans longicauda* ♂ juv. last year.  
✓3054. accompanied by parents. 160; 235; cul., 12.5; tars., 26.  
480. *Chondestes grammacus* ♀ ad.  
3055. 172; 273; 85; 73; cul., 13; gape, 15; tars., 20; mte., 20; cl., 5.2.

481. *Trochilus alexandri* ♂ ad.  
3056. 93; 110; 41; 28; cul. from feathers 18; gape, 22.5; tars., 4; mte., 7.5; cl., 3.5. Iris, brown. Bill, legs, feet & claws, black.  
482. *Phainopepla nitens* ♀ ad.  
✓3057. 144; 281; 90; 93; cul., 11.5; nost., 8; gape 17; tars., 18; mte., 18; claw 5. Parent of Set 3-1.

483. *Phainopepla nitens* ♂ ad. (about)  
✓3058. 205; 293; 90; 98; cul., 12; nost., (12); gape 17.5; tars., 18.5; mte., 19; cl., 5.5. Parent of Set 3-1.

484. *Picus scalaris* ♂ ad.  
✓3059. 192; 340; 103; 71; cul., 23.5; gape 26; tars., 18.5; mte., 21; claw 8.5.

485. *Goniaphea cerulea* ♂ ad.  
✓3060. 181; 285; 89; 74; cul., 16; gape 17; tars., 21; mte., 22; cl., 6.5.

*Phainopepla nitens*. - A nest was found in the tall species of mesquite, which contained two fresh eggs and the shell of a third egg which had been broken previous to my discovery of the nest. Both of the parents of this nest (Set No. 3-1) were taken.  
*Goniaphea cerulea*. - This species is found common in the bottom land among low



birds. They sing by severity and like to sit on a tree near the bushy bottom land which they inhabit and where the females are now assiduously looking after their domestic concerns. If no trees are near on which to perch when singing, they select a bush or a small mesquite growing on the hillside.

*Ardea herodias* *pusillus* found of *pusillus* were taken. June 22, 1884. Fort Verde, A.T.

486. *Chordeiles acutipennis texensis* ♂ ad.

3061 230; 558; 18.4; 119; cul, 7; nost, 6; gape, 21; tarsus, 14; mte, 18.5; cl, 5.5. Irides rich hazel.

487. *Caprimulgus vociferus* ♀ ad.

3062 235; 284; 85; 116; cul, 16; gape, 17.5; tars, 29; mte, 26.5; cl, 9.

488. *Geothlypis trichas* ♀ ad.

3063 125; 182; 56; 47; nost, 7.5; gape, 13; tars, 18; mte, 14; claw, 4.

489. *Vireo pusillus*

♂ ad.

3064 130; 183; 56; 54; nost, 6.2; gape 14.5; tars, 19.5; mte, 14; claw 4.5.

*Agelaius vociferus*. - We found several pairs of these birds which without doubt had nests or eggs, but although we searched carefully we did not secure the specimens. *Lophortyx gambeli*. - Some of the Gambel's Quail are now with young, others are laying or setting and still others are still in flocks and have not commenced to nestle.

The farmers on the ranches down the valley have ploughed up hundreds of nests during the past fortnight which were built in the alfalfa.

We found a nest filled with shells from which the young quails had recently emerged.

Mr. Vogdes found a single egg on the bare ground in the center of a large clump of the low mesquite, which he said was a Quail's egg, but, from the glimpse I caught of the egg I think it belonged to a *Loxia*.

of some species. We took a set of traps for mice, and saw a nest containing a single fresh egg, whilst other nests contained young.

*Chordeiles acutipennis texensis* was singing around the mesquite bushes in the blazing sunlight, and alighted on a branch of mesquite once or twice.

"Choke Verde Salmon" in "Peter Johnston's Service to-day."

June 22, 1884. Fort Verde, A.T.

3065 155; 248; 76; 16; cul, 11; gape, 13; tars, 15; mte, 18; cl, 5. Irides dark hazel. Bill with maxilla dusky, olive-brown; mandible flesh-color, tip of bill dusky. Feet and claws, purplish brown.

Dimensions of specimens not skinned: -

*Lophortyx gambeli* Mitt. Gambel's Quail ♂ ad. Cherry Creek near Fort Verde Arizona, April 26, 1884. 278; 379; 11.8; 102; cul, 12; gape 15; tars, 31; mte, 37; cl, 9.

*Myiarchus*

♂ ad, May 1, 1884, Fort Verde, Arizona - 208; 320; 95; 93; bill measured from nostril 14; gape 26.4; tars, 23; mte, 18.5; claw 6.7.

*Chordeiles*

Nighthawk. ♂ ad, May 12, 1884. Fort Mojave, on the Colorado River, in Arizona. 206; 513; 173; 166; bill, measured from nostril, 4.5; culmen, 7; gape, 24; tarsus, 14; middle toe and claw, 19; claw, 5.

*Molothrus ater obscurus* (Aud.) Coues. Dwarf Cowbird:

♂ ad. May 13, 1884. Fort Mojave, Arizona. 189; 320; 103; 78; culmen, 17; gape, 17; tarsus, 24; middle toe and claw, 25; claw, 7. Irides, hazel.

Bill, Tarsi, feet and claws, black.

*Icteria virens longicauda* (Garr.) Coues. Long-tailed Tit. ♂ ad. May 13, 1884. Fort Mojave, Arizona.

194; 255; 80; 92; culmen, 13.5; nostril, 9.5; gape, 17; tars, 17; mte, 17; cl, 7.

tarsus, 35; middle toe and claw, 20; claw, 5.5;  
Irides, hazel.

*Pipilo aberti*, Baird. Abert's Towhee. ad.  
May 13, 1884. Fort Mojave, on the Colorado River, Arizona.  
238; 290; 87; 109; culmen, 16; gape, 11.5; tarsus,  
30; middle toe and claw, 27.4; claw, 9.4.

*Melospiza fasciata*

Song Sparrow. ad. May 13, 1884. Fort Mojave,  
Arizona, on the Colorado River.  
159; 210; 65; 72; culmen, 13; gape, 13.5; tarsus, 21;  
middle toe and claw, 20; claw, 6.

106

June 26<sup>th</sup>, 1884. Ft. Verde, Arizona.

497. *Hesperizibetula pallidus* ~~missouriensis~~. ♂ (ad.?)  
No. 106. Nose to eye, 30; ear, 61; occiput, 68;  
root of tail, 345; ears, height, 21; width, 19;  
fore-arm, 42; forefoot, 32; longest claw, 9;  
leg, 69; hind foot, 62; longest claw, 12;  
tail, from root to end of vertebrae, 103.  
Distance between claws of outstretched fore feet, 230.  
Nose to end of outstretched hind legs, 375.  
Shut while swimming down the sluice below  
the Brewery. Longest nasal bristles, 62.

492. Cotton-tail Rabbit (*Lepus arizonae major*).  
No. 105. ♀ juv. Very young. Total length (including  
tail), 175. Was sitting on a sand-flat, near  
the Verde River.

493. *Helminthophaga luciae*. ♂ ad.  
✓ 3066. 118; 185; 57; 48; nost., 7; gape 10.5; tars., 16.5;  
Mtc., 13; cl., 4.

494. *Helminthophaga luciae* ♂ ad.  
✓ 3067. 111; 177; 55; 44; nost., 6; gape 10; tars., 16;  
Mtc.: 12.5; cl., 4.

495. *Phainopepla nitens*. ♂ juv. Still retains traces of feminine  
✓ 3068 plumage. Probably bird of the last year.  
201; 288; 91; 96; cul., 12; nost., 8; gape 17.5;  
tars., 18; Mtc., 18; cl., 5. Iris less light red than  
the adult.

496. *Phainopepla nitens* ♂ ad.  
✓ 3069.

204; 285; 90; 100; cul., 12; nost., 8; gape 18;  
tars., 17; Mtc., 18; cl., 4.

497. *Icteria virens longicauda*. ♂ ad.  
✓ 3070. 199; 257; 82; 91; cul., 15; nost., 10.6; gape 18.5;  
tars., 27; Mtc., 21.5; claw 7.

498. *Astragalinus psaltria arizonae*. ♂ (ad.?)  
✓ 3071. 121; 205; 64; 48; cul., 9.5; gape 11; tars., 14;  
Mtc., 15; claw 5.

499. *Vireo*

127; 180; 55; 53; nost., 7; gape 14; tars., 20;  
Mtc., 15; claw 5. (Not skinned) Not skinned

500. *Vireo*

128; 181; 55; 53; nost., 7; gape 14; tars., 20;  
Mtc., 14.5; claw 5. Not skinned.

✓ 3072. *Haplochromis crenatus*, Henry. Red-vented Thrasher.  
♂ juv. in full first plumage. June 29<sup>th</sup>, 1884. Ft. Verde.  
The Gambel's Quail are breeding near the  
Quarters around the Post. On June 24<sup>th</sup>, Lieut.  
Carrington brought me a clutch of ten eggs of  
*Popeltoyx gambeli* which he got beside the birds, at  
the Post. The nest was situated beneath a heap of  
sagebrush & debris, and composed of a few leaves and  
a feather or two. His dog "pointed" the old Quail  
on its nest. A day or two ago I

flushed a Quail from some bushes adjoining my little  
back yard; and a number of pairs are breeding in the vicinity.

On June 26<sup>th</sup> I found & secured the following nests.  
*Vireo belli pusillus*. - The nest was built in  
a larger mesquite bush, 3 feet from the ground, and  
was deserted by the builders, doubtless owing to the  
incursion of a fox in the shape of *Molothrus ater*  
*obscurus*, one of whose <sup>parasitic</sup> eggs was found in the nest  
along with two eggs of the Vireo.

*Dendroica aestiva*. - A nest & two eggs were  
taken from a little cottonwood about seven  
feet from the ground. The old birds, as usual,  
made no demonstration about the nest.



*Phainopepla nitens*. - A nest was taken with its three somewhat incubated eggs from a fork in a dense branch of the low mesquite now in full blossom and very fragrant.

*Geococcyx californianus*. - The nest found June 21<sup>st</sup>, was again visited and found to contain only ~~the~~ one egg as it did when first discovered. The old birds were not seen about on either occasion. The nest was built upon a platform composed of the four ~~slightly~~ slightly upward slanting prongs of a twice forked branch, all of the branches lying in nearly the same plane. The nest itself was only a little more conspicuous than a *Scolecophagus*. It was composed of rather small sticks laid across the four branch and raised upon one side to make it sit even upon the branches. A little dirt and a weed or two with the roots & dirt adhering a few flat pieces of cow droppings were the only other materials used. The tree was larger top of mesquite.

*Phainopepla nitens*. - No. 3069 is the parent of the suite of eggs referred to above. The female did not come about the place although I remained in the vicinity for an hour; but the male was quite bold, and uttered a low chirp which I recognized as coming from this bird for the first time, and while sitting upon a mesquite bush sang a low song which was quite pretty.

*Icterus bullocki*. - Many families of these birds were seen amongst the mesquites having apparently <sup>deserted</sup> left the cottonwoods for the bush. The young birds fly well and are very handsome in their first full dress. I suspect that they feed upon the Hawthorn which is now ripe and abundant, the Hawthorn being <sup>particularly</sup> interwoven among the mesquites & other bushes.

but it more or less resembles some other color. The *Phainopepla nitens* feeds to some extent the larger insects at this season, and this may be the reason they choose to live here in such numbers.

June 30<sup>th</sup>, 1884. Fort Verde, Arizona.  
The thermometer reached 106.5° today. No other day the maximum was 106°.

*Sayornis sayi*. - A number of these nice birds have been raised about the quarters in Officer Row and now the young birds are abundant and exceedingly gentle considering the abundance of their enemies, *Hais domesticus*; and their song is fully developed and exquisite in its softness, fullness and coarseness. That of the old birds is much worn at this season. Half a dozen of them may be seen sitting in a row upon a barn roof, calling for food, and singing in an amusingly wistful and interested manner every passing insect. Say's birds are very engaging little things, and we enjoy their society much.

#### *Tyrannus*

These Tyrants are now flying well, but are still objects of great solicitude to their parents. One pair had a nest in a cottonwood in front of our quarters, and made it warm for all bird stranger who came without invites. The young were to keep together, and are loath to break up an intimacy with each other which has been so close in times past. When learning to fly, they may frequently be seen sitting in a row upon a dry limb or on a house-top, flying in turn to some other perch with much chattering and outcry.

July 1<sup>st</sup>, 1884. Fort Verde, Arizona.  
V3073. *Icterus bullocki*. ♀ juv. in 1<sup>st</sup> plumage. still attended by its parents, and accompanied by its fellow nestlings 200 x 315; 93; 85; cul. 17; gape 18.5; tars. 25.5; mte. 23; cl. 6.5. 1000.

Irides, dark brown. Bill, with maxilla dusky and mandible, flesh color, tinged with purish brown. Tarsi, feet & claws, pale. Skin brownish; claws, horn-color. This specimen may be taken as a type and the type name given its dimensions; of the young & plumage.

Sayornis sayi. I noticed a Flycatcher flying high in the air, uttering a tri-syllabic note in a vivacious, <sup>musical</sup> tone which really was very pretty and actually amounted to a song.

July 2<sup>nd</sup>, 1884. Ft. Verde, A.T.

Capito averti. Found a nest seven feet from the ground, resting on a large dead limb that rested lay upon some small branches of a little cottonwood tree, close beside the Verde River. The nest contained three eggs, and the parents were shy and could not conveniently be secured although they called loudly from the opposite bank of the Verde. They are the about time nests. Zenaidura carolinensis. - Young seen on wing.

501. Ground Squirrel (Spermophilus harrisi). June 26, 1884. ♂ juv. (No. 107.) Nose to root of tail, 123; tail from root to end of hairs, 87. Total length, 210. Young of the year.

This species utters a metallic chirping note, and is extremely curious. A few chirps will suffice to bring them to the entrance of their burrows at any time; and they will frequently run directly up to within a few feet of you; then stop, & stamping and jerking their tails and presently making a bustle, retreat, with a loud note diving into their burrows, the entrances of which are beneath the mesquite and other bushes.

✓ 3074. Pteropus cucullatus, Swainson. Hooded Oriole. ♂ ad. 217; 285; 91; 102; culmen, 21.5; gape, 23; tarsus, 23; mte., 22; cl., 7. Iris, hazel. Bill glossy black with bare one-half (nearly) of mandible, pale blue; the black of lower mandible extending from the feathers of chin to the tip. <sup>border of the</sup> Two black spots on the mandible sharply defined, oblique extending from below forward &

upward. Tarsi and feet, bluish lead-color; claws, dusky. The yellow feathers of the occipital region and posterior part of crown have long black hairs attached to them, some measuring 12 mm.

Sceloporus July 7<sup>th</sup>, 1884, Fort Verde, Arizona. Young Carnelian. - A young specimen measured from nose to anus, 73 mm; anus to end of tail, 98 mm, was shot in the cave near my quarters, & preserved in alcohol. Pandion haliaetus carolinensis. - A pair are sitting in the Verde in view from our house.

3075. Tyrannus verticalis. ♂ juv. Young in first plumage, still with parents. Irides, dark hazel. Bill, with maxilla black; mandible, brownish-black. Skin at corner of mouth, yellow. Tarsi & feet, plumbeous; claws, blackish. 208; 353; 110; 87; nost., 11; gape, 25; tars., 18; mte., 20; cl., 6. Plumage well developed.

✓ 3076. Petrochelidon lunifrons. ♂ ad. It was gathering mud for its nest, beside the Verde River, and its beak & throat were crammed with it. Nates build nest: 142; 298; 102; 51; cul., 9; nost., 5.6; gape, 16; tarsus, 11.5; mte., 16.5; cl., 5.5. Irides, dark hazel. Bill, black. Tarsi & feet dark plumbeous brown; claws, black.

✓ 3077. Picus scalaris, Wagler. ♂ juv. Young in first plumage, well developed. 190; 335; 102; 70; cul., 22; gape, 24; tarsus, 19; mte., 21; cl., 8.5. Iris, hazel. Bill blue-blackish; horn-color slightly at base on young. Tarsi & toes greenish plumbeous; claws, dusky. Sex carefully determined.

July 8<sup>th</sup>, 1884. Fort Verde, Arizona.

Phainopepla nitens. - This is the most silent bird I know. This afternoon I went fishing in the Verde, and a male bird remained in my vicinity a long time, but never uttered a syllable. He sat upon the dry twigs on the top of a Sycamore and flew out in perpetual circles after what seemed to be imaginary insects, of purely for amusement. <sup>Figure 3</sup> Diagram showing manner of flight.



*Penaeidura carolinensis*. - A nest containing two fresh eggs, was found in a nest composed of stems of herbs, a few twigs and one feather, placed in a grape-vine, growing upon a sycamore tree. *Fiber zibethaeus*. Muskrat. While sitting quietly fishing upon the river bank, a couple of muskrats were seen swimming towards me. I remained quiet, and one of them swam up to within a few feet of me, and after diving some time secured the root it wanted and then climbed out upon the bank within five or six yards of me and proceeded to devour it quite at leisure, although it cast an occasional furtive glance in my direction.

✓ 3078 *Guiraca caerulea* ♂ ad. 180; 280; 83; 73; cul., 17; gape, 18; tarsus, 22; mte., 23; cl., 7.

✓ 3079. *Sayornis sayi* ♂ juv. Young in first plumage, fully developed. Bill cared for by parents. Irides, dark hazel. Bill, black; mandible brownish purplish-brown at base; skin at corner of mouth, yellow. Tarsi, feet and claws, black. 194; 323; 101; 87; nost., 10; gape, 23; tarsus, 20; mte., 17; cl., 6.

July 10<sup>th</sup>, 1884. Fort Verde, Arizona.

✓ 3080. *Vireo vicinior*, Coes. Gray-breasted ♂ ad. 145; 214; 63; 62; cul., 12; nost., 8; gape 15; tars., 19.5; Mte., 15.5; cl., 5.5. Iris hazel. Bill,

3081. with maxilla dusky; mandible plumbeous. Tarsi and toes, plumbeous. claws, dusky. Very worn summer plumage.

3081. *Amphispiza bilineata* ♀ juv. A nearly perfect albino. The feathers exhibit a faint dusky hue, on the inner webs for their basal 2/3, underneath. Iris, pink (horned). Bill, tarsi feet and claws, white. The back shows the faintest possible trace of brown, and all of the feathers of the body are pale ashy at base, although pure white on the surface. It is a bird of the year and was found in a small flock of its species. 135; 200; 61; 59; cul., 12; gape 12.5; tars., 20; Mte., 18.5; claw, 5.5.

3082. *Pucadia ruficollis boucardi* ♂ ad. (Worn breeding plumage) 159; 212; 63; 71; cul., 13; gape, 14; tars., 20.5; Mte., 19; claw, 5. Iris hazel, maxilla brownish black, mandible plumbeous, tarsus light brown, feet & claws darker brown.

3083. *Tyrannus vociferans* ♂ ad. 117; 380; 112; 80; cul., 21.5; nost., 15; gape 27; tars., 20; Mte., 21; claw 7. Bill black, mandible tinged with brown, tarsi, feet and claws black.

✓ 3084. *Icterus parisorum* ♂ ad. 222; 328; 101; 94; cul., 24; gape, 25.5; tars., 25; Mte., 25; claw 7. Bill, with maxilla and terminal half of mandible black, basal half of mandible, blue. Tarsi and feet bluish gray - claws brownish black.

✓ 3085. *Icterus parisorum*. ♂ juv. In first plumage. 207; 320; 101; 91; cul., 21.5; gape 23; tars., 24; Mte., 24; claw 8. Bill with maxilla brownish black, mandible dusky flesh color, tarsi & feet bluish gray - claws brown.

✓ 3086. *Icterus parisorum*. ♀ juv. In first plumage. 210; 317; 97; 86; cul., 21; gape 22; tars., 25.5; Mte., 25; cl. 7. Bill with maxilla olive brown - mandible pale purplish flesh color - both mandibles very slightly tipped with white. Tarsi & feet bluish gray - claws plumbeous brown.

To-day I went hunting for Deer and Antelope. I took my Soldier Gilbo, who rode his cavalry horse and carried his carbine in the boot attached to the saddle. He also carried my shotgun; and I rode my white mare & carried a "Long Tom" or Infantry rifle of 45 calibre.

We rode west 15 miles into the cedar and pine-clad buttes, bordering the San Francisco range. After riding ten miles we found water in pools, in a nearly dry bed of a large watercourse. Here we found about one hundred *Doves* (*Penaeidura carolinensis*),

which is, of course, a very convincing indication of water in Arizona is a more certain indication of water than the site of a stream. After watering our horses, drinking what we wanted and filling our canteens we left the only water to be found in that region. Besides these there were a number of Flycatchers, House Finches (*Carpodacus frontalis*) and Goldfinches (*Carduelis psaltria*), all, perhaps excepting the Flycatcher, attracted by the water. Gilbo shot a number of doves and plucked them; but when cooked we found them tough. One contained two eggs, one in the oviduct had attained the usual size and was covered with a thin calcareous coating, which broke and cracked when I attempted to "blow" the egg. The other egg was about as large as this figure ( ) and was all yolk without albumen.

We followed an old trail about four miles, on a high ridge, gradually ascending into the mountains. On the road we passed several large colonies and some smaller ones of the "Century Plant" or Agave (*Agave palmeri*) called, Meskal by the Mexicans who distill it and make a highly intoxicating alcoholic beverage from it. The flowers of this stately plant are bright yellow. The plants vary in size from ten to twenty-five feet. We cut down a large one and cut from its base some of the crisp heart, which has a pleasant sweet taste when first eaten, but leaves a highly pungent after taste decidedly peppery!

Tying our horses, we dismounted in one of these meskal groves and hunted for small birds among the cedars that here grow quite thickly among the malapai stones & rocks. A piece of pottery was found here, perhaps made by an ancient Aztec.

House wrens, jays, Scott's Orioles and 4-113 Quail were found here, and several other species were found further on among the cedars & Pines of the mountains where I waited while Gilbo hunted some quiches for horned guine.

In some scattered cedars, I found a family and shot my first specimen of the Gray Heronlet (*Vireo vicinior*, *cooperi*) which proved to be a male in worn breeding plumage. I had a long search for the bird which I afterwards found in a branch when it had caught fast in falling. By the time I had secured & identified this rare species, the balance of them had made their escape.

The three specimens of Scott's Orioles were a young male and female and their male parent. The balance of the family was seen but my supply of small shot had been exhausted by Gilbo in killing doves, and there remained only a few cartridges lightly loaded with dust shot for Hummingbirds. Otherwise I could have secured the female & other young.

Overcome by the burning heat, and extreme thirst, I spread my coat on the ground and lay down beneath a cedar-tree, on the sloping side of a mountain to rest, after divesting myself of most of my clothing. While there several rare birds appeared: A female Black headed Grosbeak (*Zamelodia melanocephala*) alighted in a cedar near me and uttered a note like the call-note of the Rose-breasted species. It alighted then on a pine dead tree and uttered this note for some time. I approached it to get a close shot with my small shot, but it flew to a little distance; and while I watched it, a <sup>Cassin's</sup> ~~cooperi~~ Flycatcher (*Tyrannus vociferans*) alighted on the limb where it had left, and was shot. This was the first one I have identified.

A thunder storm was in the great



at a distance and soon the clouds cast an agreeable shadow over the place where I was, and I at once got my traps on and began to look around me. A Plain Tit (*Lophophanes inornatus*) was seen in a pine. A little way below me was an enormous precipice near the summit of which were a family of White-throated Wrens (*Catherpes mexicanus canescens*) were found. Failing to secure a specimen with a charge of dust, my next effort similarly failed when I fired at a little Phoebe (*Psaltriparus tenuis*), the only one of the genus I ever saw alive.

A family of Boncard's Sparrows (*Pucaria ruficeps boncardi*) were surprised under a log amongst some scrub oaks, and some flew into the cedars which others escaped by running, mouse-like, through the bushes & grass. I shot the male parent, and afterwards saw several others beside a dry watercourse, amongst the oak bushes.

The Western Red-tailed Hawks now fly about in families the young and old together.

We returned by Cedar Creek, having seen no recent signs of Deer. We did see one east of there. In the vicinity of Cedar Creek, good-sized flocks of Black-crowned Flycatchers (*Phainopepla nitens*) were seen. One was seen sitting on a cedar-tree on the plain near the foothills some miles from the only water in that region.

Near the Indian graveyard were seen a number of Shore Larks (*Eremophila alpestris*) and in the morning we saw & heard a number of Rock Wrens (*Salpinctes obsoletus*) on the cliffs opposite the Post. We also saw a solitary Great Blue Heron flying across the plain on top of the cliffs, and a number of Ravens

We reached here at ~~sun-down~~ retreat, after a 30-mile ride, with three new birds:

*Pucaria*

*Vireo vicinior* *Coccyz*, Gray Vireo, and and *Tyrannus vociferans*,

young *Eremophila alpestris* were seen near the Indian graveyard. July 11<sup>th</sup>, 1884. Fort Verde, Ariz.

3087. *Myiarchus cinerascens* ♀ juv. in 1<sup>st</sup> plumage, accompanied by its parents. 206; 312; 92; 89; nost. 13; gape, 14.5; tarsus, 23; ule., 18; cl., 6. Iris, hazel. Bill, uniform brownish-black. Tarsi & feet plumbeous; claws, dusky brown.

3088. *Tyrannus verticalis* ♂ juv. in 1<sup>st</sup> plumage accompanied by its parents. 214; 387; 117; 92; nost., 12.5; gape, 25; tarsus, 18.5; ule., 20.5; cl., 6. Bill, with mandible horn-color at base; residue of bill, brownish-black. Irides, hazel. Tarsi & feet, plumbeous; claws, dusky.

✓3089. *Melospiza fasciata fallax* ♂ ad. 163; 214; 62; 71; cul., 13; gape, 13.5; tarsus, 23; ule., 21; cl., 6. Iris, brown. Bill, with maxilla dusky brown; mandible, horn color. Tarsi, feet & claws, brown.

✓3090. *Phainopepla nitens* ♂ ad. 201 x 285  
✓3091. *Lophortyx gambeli*. ♀ ad. 280; 360; 111; 104; cul., 11.5; nost., 8.7; gape, 13; tars., 31; ule., 35; claw, 9. In exceedingly worn breeding plumage; it breast denuded of feathers.

*Zenaidura macroura*. - Found a nest in a willow containing two eggs nearly ready to hatch. The old bird trilled along the ground as usual.

*Melospiza fasciata fallax* was singing its best, and some were seen abroad with their young.

July 12<sup>th</sup>, 1884. Ft. Verde, Arizona.

3092

Hummingbird in first plumage; feeding around the Willow Bignonia

✓3013. *Lophortyx gambeli*, Nutt. 1 juv. young of the year. 212; 315; 98; 76; cul., 9.2; gape, 12; tars., 28; ule., 33; cl., 6. Occipital plumage, 52. Bill, dusky brown. Tarsi and feet, horn-color, mottled with brown.

✓ 3094. *Lophortyx gambeli*, Nutt. (Young of the year.)  
205; 312; 95; 71; cul., 8.7; gape, 11.5; tarsus, 27;  
mtc., 36; cl., 6.5. Iris, hazel. Bill, dusky brown.  
Tarsi & feet, brownish flesh-color; claws, dusky.  
Occipital plume, 2.

✓ 3095. *Lophortyx gambeli*, Nutt. juv. (Young of the year.)  
175; 275; 83; 54; cul., 7; gape, 11; tarsus, 26;  
mtc., 30; cl., 6. Iris, hazel. Bill, with maxilla  
brown, mandible, horn-color. Tarsi & feet, brownish  
flesh-color; claws, dusky. Occipital plume, 15.

✓ 3096. *Lophortyx gambeli*, Nutt. 7 juv. (Young of the year.)  
210; 312; 94; 72; cul., 10; gape, 12; tarsus, 27;  
mtc., 30; cl., 7. Occipital plume, 23. Irides hazel.  
Bill, brown; horn-color at base of mandible.  
Tarsi & feet, flesh-color, mottled with brown;  
claws, dusky brown.

✓ 3097. *Lophortyx gambeli*, Nutt. juv. (Young of the year.)  
187; 285; 90; 64; cul., 9; gape, 10.5; tarsus, 23.5;  
mtc., 30; cl., 6. Bill, with maxilla brown; mandible  
horn color. Irides hazel. Tarsi & feet brownish flesh  
-color; claws, dusky. Occipital plume,

✓ 3098. *Lophortyx gambeli*, Nutt. juv. (Young of the year.)  
199; 298; 91; 65; cul., 10; gape, 11; tarsus, 25;  
31; cl., 6.5. Iris, hazel. Bill, brown. Tarsi &  
feet brownish flesh-color; claws, dusky. Occipital plume, 19.

3096. *Chordeiles acutipennis texensis*, Fad. 235; 535;  
186; 123; cul., 6.5; nostril, 4.5; tarsus, 14; mtc., 20;  
claw, 5.5.

*Lophortyx gambeli*. - I found a large flock  
and secured nine specimens with a single small  
charge of No. 10 shot. Six of them were measured,  
but owing to interruptions only 3 were skinned.  
The one numbered 3096 was a female (?). The  
larger of the two remaining was a ♂ & the  
smallest a female (?).

*Accipiter fuscus*. - (One or two, beside the Verde  
A large black Hawk, having a broad

band of white across its tail, was seen beside  
the Verde, where I flushed it twice, but did not  
succeed in shooting it. It was *Urotrichia anthracina*.

July 13<sup>th</sup>, 1884. Fort Verde, Arizona.  
3096, u. Mouse. *Mus musculus*. Fad. Skull one.  
No. 108. Caught in a trap in the house, along with two others;  
*Ichneumon gabekli*. The family of young *Dendroica* birds  
reared in the nest spent the whole afternoon in the  
oceanwood-tree in our yard, where they were very  
noisy.  
3096, u. Mouse. *Mus musculus*. I juv. Skull with  
No. 108. Skull inside. Taken after the above.

July 14<sup>th</sup>, 1884. Fort Verde, Arizona.  
✓ 3097. *Astragalinus psaltria* f.  
106; 193; 59; 44; cul., 11; gape, 10; tarsus, 13;  
mtc., 15; claw 5.  
✓ 3098. *Caprimulgus vociferans*, Fad.  
155; 240; 78; 66; cul., 12.5; gape 13;  
tars., 18; mtc., 19; claw 5.5.

3099. *Dendroica aestiva*  
130; 197; 63; 52; nost., 7; gape 13.5; tars., 19.5;  
mtc., 16; claw 5. Bill, with maxilla & tip of  
mandible olive brown, residue of mandible  
pale yellowish - tarsi & dorsum of feet &  
pale plumbeous yellow underside of  
feet yellowish - claws brownish yellow, iris hazel.

✓ 3100. *Vireo belli pusillus* juv.  
125; 175; 54; 50; cul., 10.5; nost., 6.5;  
gape 13.5; tars., 20; mtc., 14; claw 4.  
Iris dark hazel, bill, with maxilla  
dusky brown, mandible bluish flesh color.  
Tarsi and feet plumbeous, claws brown.

✓ 3101. *Petrochelidon lunifrons* f. ad. 143; 292;  
104; 54; cul., 9; nost., 5.5; gape, 15.5; tarsus, 13;  
mtc., 16; claw, 6.

✓ 3102. *Picus scalaris*, Mayl. f. juv. in 1<sup>st</sup> plumage.  
179; 313; 94; 68; cul., 19; gape, 21.5; tarsus, 19; mtc., 20;  
claw 8. Irides, hazel.



✓3103. *Lanius ludovicianus excubitorides* ♂ juv. in 1st plumage  
239; 333; 102; 110; cul., 18; gape 25; tars., 28;  
mtc., 24; claw 8. Bill with maxilla brownish  
black, mandible horn color at base, dusky  
at tip, tarsi & feet dusky plumbeous,  
claws blackish.

✓3104. *Lanius ludovicianus excubitorides* ♂ juv. in 1st plumage  
226; 320; 95; 107; cul., 17; gape 25; tars., 28;  
mtc., 24; claw 8. Bare space around eye  
yellowish flesh color, iris hazel, bill dusky  
olive brown, with mandible horn color at  
extreme tip and at base, tarsi & feet dusky  
plumbeous, claws blackish.

✓3105. *Lanius ludovicianus excubitorides* ♂ juv. in 1st plumage  
225; 315; 99; 107; cul., 16.5; gape 24; tars., 27;  
mtc., 24; claw 8. Colors as above.

✓3106. *Lanius ludovicianus excubitorides* ♂ juv. in 1st pl.  
230; 323; 99; 107; cul., 17; gape 25; tars., 28;  
mtc., 24; claw 9. Colors same as No. 3103.

3106a *Mus musculus* ♂ ad. Only 13, 1884. Ft. Verde, A.T.

No. 109 nose to eye, 12; ear, 21; occiput, 25; root of tail, 85;  
ears, height 15; tail, 90; between outstretched forelegs, 75;  
" width 13; nose to end of outstretched hind leg, 120;  
fore arm, 12; fore foot, 7; leg, 18; hind foot 15.  
*Quiraca caryac* was singing deliciously.

July 15th, 1884. Fort Verde, A.T.

✓3107. *Phainopepla nitens* (Sw.) Sel. ♀ ad.  
203; 283; 90; 98; cul., 11; gape, 17; nost., 7.7;  
tars., 18; mtc., 18; cl., 5.5. Parent of No. 3108

✓3108. *Phainopepla nitens*. ♂ juv. in 1st plumage,  
still with parents, of which the ♀ (No. 3107) was taken.  
175; 277; 85; 75; culmen, 10; nost., 7; gape, 17;  
tarsus, 18; mtc., 18; cl., 5; iris, hazel;

Bill brownish-black, yellow along gape & commissure for 1/2  
full the distance. Tarsi & feet plumbeous; claws dusky.  
✓3109. *Scleria virans longicauda* ♂ juv.  
198; 240; 74; 92; cul., 15; nost., 10; gape, 18;  
tarsus, 27; mtc., 22; cl., 6. Irides dark brown.  
Bill with maxilla blackish; mandible plumbeous.

Tarsi & feet, lead color; claws dusky.

3110. *Dendroica aestiva* ♂ juv.  
125; 186; 59; 49; nost., 8; gape, 14.5; tars., 19;  
mtc., 15; cl., 4.5. Iris, brown. Bill, dusky brown  
above; sides of max. & whole of mandible, flesh-color.  
Tarsi & feet, pale plumbeous-olive; claws, brownish  
flesh-color.

✓3111. *Heermithophaga luciae*, ♂ juv. in 1st plumage still  
with parent (No. 3113).

3112. *Geothlypis trichas* - juv. in 1st plumage.

✓3113. *Heermithophaga luciae* ♂ ad. parent of No. 3111.  
118; 183; 56; 47; nost., 7; gape, 11.5; tarsus, 16; mtc., 14;  
ear, 4. Sides, brown. Bill, blackish above, plumbeous  
below. Tarsi & feet plumbeous; claws, brown.

3113a Long-eared Bat ♀ juv. Flies in our bedroom.  
*Georhynchus macrotis pallescens* Miller.

July 16th 1884. Fort Verde, Arizona.

✓3114. *Catherpes mexicanus conspersus* ♂ juv. in 1st pl.  
146; 196; 59; 59; cul., 21; nost., 14; gape 24;  
tars., 18; mtc., 18; claw 5. Bill blackish on maxilla

✓3115. and tip of mandible - remainder of mandible flesh color.

✓3116. *Salpinctes obsoletus*. ♂ ad. Parent of No. 3116.  
155; 232; 74; 59; cul., 20; nost., 12.5; gape 23.5;  
tars., 22; mtc., 20; claw 5.

✓3116. *Salpinctes obsoletus* ♂ juv. Parent of No. 3116.  
142; 218; 67; 52; cul., 17; gape, 21; nost., 11;  
tarsus 19.1; mtc., 17; cl., 4.5. Iris, brown. Bill, with  
basal one-half of mandible, pale yellow; remainder brownish.  
Tarsi, feet & claws, dusky plumbeous.

✓3117. *Salpinctes obsoletus* ♂ juv. This, and the two following  
were shot together & belonged to a different brood -  
from the two above. 158; 230; 70; 58; cul., 19; gape,  
24; tarsus, 22.5; mtc., 20; cl., 5.5; nostril 13.  
Colors as above.

✓3118. *Salpinctes obsoletus* ♂ juv. Sex not known.

✓3119. *Salpinctes obsoletus* ♀ juv. (spec. with short tail.)

3120. *Amphispiza bilineata* ♂ juv. in 1st pl. with parents

3121. *Amphispiza bilineata* ♀ ad. - 140; 205; 60; 60;  
cul., 12; gape 13; tars., 19; mtc., 19; claw 5.5.

3122 *Myiarchus cinerascens* ♂ ad.  
begin here. 215; 310; 97; 96; nost., 14; gape, 26; tars., 24.5;  
mte., 18; cl., 6.

To-day, I saw my first Deer -- a sex half-grown fawn  
leaped from under a cedar tree at the head of a deep canon  
down which they dashed over loose rocks and gulches at  
incredible speed. I saw them run as mile, twice!

July 17<sup>th</sup> 1884. Fort Verde, Arizona.

3123. *Polioptila caerulea*. ♂ ad. 118; 160; 49; 49; cul., 8;  
gape, 14; tarsus, 17.5; mte., 13; cl., 4.3. Iris, hazel.  
Bill, black, slightly horn-color at base of mandible.  
Tarsi & feet, <sup>dusky plumbeous</sup> black, the latter flesh color below;  
claws, black.

3124. *Polioptila caerulea* ♂ ad. 117; 148; 45; 49; cul., 7.5;  
gape, 14; tarsus, 17; mte., 12; cl., 3.5. <sup>Color of underparts</sup> Just the above  
specimen were, doubtless, a mated pair, as they  
were found together in a belt of small  
cedar-trees growing a but a few miles northeast  
of the Post. The male sang a very beautiful song.  
I had laid down to rest after a hard tramp  
in search of Deer, and went to sleep in the shade of  
a cedar tree. When I awoke these pretty birds  
and the Gray Vireo (*V. vicinior*), Plain Titmouse (*Topho-  
anes inornatus*), Black-throated Sparrow (*Amphispiza  
bilineata*) and House Finch (*Carpodacus frontalis*) were  
all bustling about me amongst the Cedars  
where, before I fell asleep, all had been quiet, and  
the only bird seen was a mockingbird (*Mimus  
polyglottus*) that sat weathercock-wise on the  
summit of a cedar, its tail horizontal and  
floating in the wind, its body oblique and  
heading towards the wind. This is a favorite  
and absurd attitude with the *moquet*.

3125. *Vireo vicinior*, Leconte. Gray Vireo ♀ juv. in 1<sup>st</sup> plumage,  
with its parents, 143; 207; 62; 61; nost., 7; gape, 14;  
tars., 19; mte., 13.5; cl., 4. Irides, dark hazel.  
Bill with maxilla and tip of mandible, blackish; residue of  
mandible, bluish-gray. Tarsi & feet, bluish-gray; claws,  
dusky. Found in cedar. Note like a catbird's or other song bird.

3126. *Tophoanes inornatus* ♂ juv. (Young of the year  
149; 232; 74; 64; cul., 13; gape, 15; tarsus, 22;  
mte., 18.5; cl., 6. Iris, hazel. Bill, dusky plumbeous.)  
Tarsi and feet, plumbeous; claws, dusky.

3127. *Amphispiza bilineata*. ♂ ad. 150; 220; 68; 69;  
cul., 12; gape, 12.5; tarsus, 20; mte., 17; cl., 5.  
*Mourning Dove* (*Zenaidura carolinensis*).  
Found a nest containing two fresh eggs in  
a cedar tree. (Nest No. 1. Set 2).

Gilbo saw one Deer (*Canis macrotis*) in the  
vicinity of the Post, in a rocky ravine or canon.

Yesterday (July 16<sup>th</sup>) I saw a nest of *Polioptila*  
containing small younglings. It was  
built under the eaves of a large chamber or  
in the limestone rock. The old bird evidently  
use one particular shelf of the sealing rock for  
its roost, whereon its excrement had accumulated  
in a pile nearly the bulk of a coconut. The pair  
of flycatchers (*Sayornis sayi*) at my hospital reared  
a brood of young. Then a clutch of eggs was  
taken by me, and, now, there are young nearly  
grown in a third nest. The birds built a new  
nest for each brood. The parent was observed, when  
foraging for her first brood, to take a piece  
cotton, and cram it into the throat of a young  
one -- they had left the nest -- and when it choked in  
trying to swallow this savory morsel, she pulled  
it down with her bill. The young sometimes  
utter a loud metallic shivering note when  
flying which sounds not unlike the noise the  
Mourning Dove makes in flying. The old birds,  
also, have a curious not musical note which  
on rare occasions they utter high up in the air  
when the fancy seizes them, and they fly away  
up and descend in a sharp curve uttering this  
note in rapid succession, when it has the  
effect, and doubtless is intended for a song.



July 18<sup>th</sup>, 1884, Fort Verde, Arizona.  
 Today I rode up Beaver Creek as far as the  
 ponds and ranches, when I was told  
 that Montezuma's Well, a deep pool of  
 large size and unknown depth, having  
 nearly perpendicular walls of several  
 hundred feet in height, and filled with the  
 chambers used as dwellings by the Aztec tribes.

As it was nearly sundown, however, I thought  
 best to visit this wonderful spot at some  
 future time. A settler on one of the ranches  
 told me that the ponds alluded to were inhabited  
 by Ducks, Geese, Waders, and numerous other  
 birds; but I had no time to investigate. He  
 said that Beavers (*Castor fiber canadensis*) were  
 abundant in the Creek about his ranch, and  
 that he frequently saw them, and they were  
 of diminutive size compared with the  
 same species in the north. The Creek  
 is here bordered by a wide belt of tule.

*Scirpus*, and there are numerous  
 "Jokes" as my friend calls them (*Butorides*  
*viscerosus*). I saw one fine old one in a  
 large Sycamore (*Platanus wrightii*).

*Chamaea nitens* was occasional all along  
 the road. Gambel's Quail (*Lophortyx*  
*gambeli*) were numerous, and several large  
 broods of very small young were found with  
 their parents, but even these little fellows  
 could fly swiftly, and left their parents as  
 soon as alarmed.

*Sandwichia haliastur carolinensis*. - A bird was  
 seen ten miles up Beaver Creek and a  
 nest was discovered, now deserted by the  
 young, in a dead Sycamore tree.

The sycamores along Beaver are of  
 large size, and in them the Turkey Buzzards  
 build their nests. Sparrow Hawks (*Accipiter*  
*sp. var.*) also breed in them and the young

and old birds were numerous and seen  
 in families.

*Corvus carnivorus*. - An amusing sight was a  
 pair of Ravens, one perched on either post  
 of the gateway at one of the ranches.  
*Sayornis nigricans*. - A brood of young  
 with the parents were found on the ~~Beaver~~

V3128 *Ammodramus sparverius*. ♀ juv.  
 270; 380; 188; 135; cere, 4; cul., 11.5; gape, 19.5;  
 tars., 36; mte., 33; claw, 10. Bare skin around  
 eye greenish yellow - cere greenish yellow - bill  
 bluish gray; culmen tipped with black. Tarsus  
 & feet yellow; claws, black. Iris, hazel.

V3129 *Ammodramus sparverius*. ♀ juv.  
 270; 387; 185; 130; cere, 4; cul., 12; gape, 30;  
 tars., 38; mte., 31; Cl., 9. Iris, hazel. Bare skin  
 around eye, and cere, greenish yellow. Bill, bluish  
 gray throughout, but slightly darker above at tip.  
 Tarsi & feet pale yellow; claws, black.

V3130 *Icteria virens longicauda*. ♂ juv. in 1<sup>st</sup> plumage.

3131. *Passerina amoena*. ♀ ad. 140; 215; 66; 56;  
 cul., 11; gape, 12; tarsus, 17; mte., 17.5; Cl., 5.  
 Iris, hazel. Bill, brown - maxilla dark, mandible  
 light. Tarsi & feet & claws, dark brown.

3132. *Coccyzus americanus* ♀ ad. 317; 445; 147;  
 167; cul., 28.5; gape, 36; tarsus, 29; mte., 29; Cl., 8.  
 Bare skin around eye, black; below, blue. Irides, hazel.  
 Bill, with maxilla blackish, broadly edged with gray.  
 At base and sides streaked with dull yellow. Mandible  
 orange-yellow, tipped with blackish for 5 mm. space.  
 Tarsi and feet, plumbeous; claws, dusky. This bird  
 contained two large ova, which would have  
 been deposited in a day or two.

V3133. *Icterus cucullatus*. ♀ ad. 211; 277; 88;  
 95; cul., 21; gape, 23; tarsus, 23; mte., 21.5; Cl.,  
 6.5. Irides, hazel. Bill, with maxilla glossy black,  
 with a triangular blue patch at on sides of  
 ramus of mandible. Tarsi & feet, plumbeous;  
 claws, brownish-black.

3134. *Tyrannus verticalis* ♂ ad. 230; 404; 125; 101; wing, 16; gape, 28; tarsus, 19; ule., 22; cl. 8.

*Tachycineta bicolor*. - Several of these lovely songbirds were seen for up on Beaver Creek, where suitable nesting sites were abundant. *Buteo borealis* - A fine old bird was seen, and I was told that this species is quite numerous up there, particularly about some ponds and patches of tule along the stream. *Myiarchus cinerascens*. - One sighted; seen at the crossing on the Verde, as I rode home at dusk of evening. I see a bird of this species quite frequently about the River near the Post.

*Cathartes aura*. - Abundant in several localities.

July 14<sup>th</sup>, 1884. Fort Verde, Arizona.

*Tyrannus verticalis*. - Several times I have heard a song which seemed to come from this bird, always at evening; but this evening I positively identified the author of the song to be the "Arkansas Traveller," as my wife calls it. The bird sat on a sycamore and in the attitude of a love song gave a loud, shrill impetuous song, which no one could deny having the attributes of melody rhythm + sweetness which constitute a song. The song consists of five notes, always preceded by its usual desyllabic call, twice repeated. It is spirited and sweet.

*Ardea herodias*. - A young bird recently from the nest was seen today for the first time. *Uruba pusillus*, Coues. A nest was found suspended to the low branch of a cottonwood in a thicket. The parent was shot as it left the nest. Nest No. Set 3.

*Zenaidura macroura*. - A nest (Nest No. Set 2) was found in a cottonwood eight feet from the ground; inside of weeds

and a few shot - containing fresh eggs. The young are now on wing in many instances. 3135. *Picus scalaris*, Wagl. Texas Sapsucker. ♂ juv. In 1<sup>st</sup> plumage. 186; 320; 95; 68; cul., 20.5; gape, 22; tarsus, 19.5; ule., 20; cl., 7.5. Irides brown. Bill, black, plumbeous on mandible. Tarsi and feet, greenish-gray; claws, olive at base, dusky at tip.

3136. *Melospiza fasciata fallax*, Baird ♂ juv. In 1<sup>st</sup> plumage; still with parents. 165; 218; 64; 76; cul., 12; gape, 12.5; tarsus, 23.5; ule., 22; cl., 6. Irides hazel. Bill, with maxilla blackish-brown; mandible, fleshy-brown. Tarsi, feet & claws, ~~dark~~ brown.

July 20<sup>th</sup>, 1884. Fort Verde, Arizona.

3137. *Cathartes aura* (Linn.) Klig. Turkey Buzzard. ♂ ad. 600; 1630; 470; 240; cul. 35; gape, 52; tarsus 59; ule. 86; cl. 20. Height of bill, 15. Iris, brown. Bill, white. Bare skin of head, purplish-red, with some mottling of white and white patch under eye of circular form. Tarsi white, becoming yellowish flesh-color on feet, and olive brown on toes; claws, blackish.

3138. *Lophortyx gambeli*, Nutt. ♂ pullus with parents.  
3139. *Lophortyx gambeli*, Nutt. ♂ pullus with parents.  
3140. *Lophortyx gambeli*, Nutt. ♀ pullus with parents.

July 21<sup>st</sup>, 1884. Fort Verde, Arizona.

3141. *Zenaidura macroura* ♂ pullus in nest, on which female was sitting. 142 X 270.

*Tyrannus vociferans* ♂ ad.

3142. 225; 417; 132; 102; cul., (about) 21.5; nost., 16; gape, 29; tars., 19.5; ule., 22.5; claw 9. Claws black. Iris hazel. Bill black - tarsi & feet plumbeous black.

3143. *Tyrannus verticalis* ♂ ad. (15)  
221; 413; 132; 103; cul., (about) 21.5; nost., 15; gape 27.5; tars., 19.5; ule., 22; claw 7.5. Iris hazel. Bill black - tarsi & feet plumbeous black. Claws black. Shipped + 3143 were shot in the same tree & both had nests.



- ✓ 3144 *Icterus cucullatus*. ♂ ad. wooded Oriole  
210:280:89:97: cul., 19.5: gape 22.5;  
tarsus, 23: Mtc., 22: claw 6.5. Iris hazel, basal  
3145. one half of rami blue - residue of bill, black. tarsi  
and feet bluish gray - claws blackish.
- ✓ 3145. *Pyrauga ludoviciana* ♂ juv. probably a bird of the <sup>in its second year</sup>  
183:290:91:74: cul., 16: nost., 12: gape 20.5:  
tars., 20: Mtc., 20.5: claw 6.
- 3146 *Geothlypis trichas* ♂ ad.  
145:188:58:58: nost., 8.5: gape 15: tars., 21:  
Mtc., 18.5: claw 5. Iris hazel, bill black, brown-  
ish at base of mandible - tarsi, feet & claws  
yellowish brown.
- ✓ 3147 *Pipilo aberti* ♀ juv. in first plumage.  
239:298:91:139: cul., 16: gape 17:  
tars., 30: Mtc., 28: claw 9.5. Iris hazel,  
bill with maxilla olive brown - mandible, flesh  
color. July 22<sup>nd</sup>, 1884. Ft. Verde, A.T.
- ✓ 3148 *Catherpes mexicanus* var. *conspersus*. ♀ ad.  
145:188:58:52: cul., (about) 20: nost., 15: gape 23:  
tars., 18: Mtc., 17: claw, 5.
- ✓ 3149. *Vireo vicinior*. Coues. ♂ ad. In worn breeding plumage.  
145:210:60:64: nost., 7: gape 13: Tars., 20.5:  
Mtc., 15: claw 5.
- 3150 *Mimus polyglottus*. ♂ juv. in full 1<sup>st</sup> plumage  
260:376.
- ✓ 3151. *Lophortyx gambeli* ♂ pullus. Just able to fly.
- ✓ 3152. *Lophortyx gambeli* ♂ pullus. Just able to fly.
- 3152a Lizard with red shoulder stripes. This large  
lizard was shot accidentally. I fired at a  
Road-runner (*Geococcyx californianus*) behind  
a bush and found not the bird, but this Reptile.  
*Pipilo fuscus mesoleucus*. - A family of  
these birds was found in a little canon  
inhabiting alike the cedar-trees and scrub  
oak bushes.
- Aphelocoma woodhousei*. - A single bird  
found on a mesa a mile west of Davis's ranch.  
This is the first one I have seen in the Valley.

July 23<sup>rd</sup>, 1884.

Fort Verde, Arizona.

Lieut. Vaggles sent me twelve eggs of the  
Cameleon Lizard (*Sceloporus*)  
which he dug out of his hole. of them  
were preserved in alcohol, the embryos being  
considerably advanced in development. Five eggs  
of average size measure, respectively, 17.5 X 13.5,  
19 X 14; 19 X 15; 18.5 X 14.5; 18 X 15; an exception-  
ally small one measures 15 X 12. The shell is  
thick, tough, and rough, yielding <sup>but not</sup> indenting on  
pressure, collapsing when emptied of their contents.  
Color, white.

Fig. 1. (3046)

Fig. 2. (3047)

*Phainopepla nitens* (Sw.) Ccl. Nos. 3046 & 3047. Fort Verde,  
Arizona. June 19<sup>th</sup>, 1884. Young nestlings, showing  
the black skin, covered with white patches of down.  
The parents are: No. 3041 ♂ & 3042 ♀.

Note. This species is abroad with its <sup>at the same</sup> parents  
about the time the first spring migrants reach Verde.

July 23<sup>rd</sup>, 1884. Fort Verde, Arizona.

✓ 3153. *Pyrocephalus rubineus mexicanus*. ♂ ad.  
148; 252; 71; 61; cul., 9.5; gape, 18; tars., 16;  
mtc., 15; cl., 5.5.

3154. *Tachycineta thalassina* ♀ juv. in 1<sup>st</sup> plumage,  
just from nest in a hole in a willow tree, by  
the Verde River 117 X 263.

✓ 3155. *Melospiza fasciata fallax* ♂ juv. in 1<sup>st</sup> pl.  
163 X 211.

3156. *Aluco flammeus americanus* (Aud.) Ridgw.  
American Barn Owl. ♀ juv. One of a

nest of five grown young, found in a  
large hole in a clay bluff beside the  
Verde River. The nest was reached with  
some difficulty and danger. The young  
Owls hissed in a frightful manner, and  
uttered loud shrill cries. One of them was  
secured. The rest were left in the bank until  
evening in hopes that the old birds might  
also be secured; but on visiting the spot  
near sundown I had the mortification  
to find that the birds had flown, one and all.

I tied the live Owl to my saddle and  
rode home. On the way I got off and shot  
a Violet-green Swallow, whereupon the owl set  
up such a screeching, hissing and flapping  
that my horse, Daisy, became perfectly frantic  
and at length shook the Owl off. I went to catch  
it, when it got up and flew away. I shot it  
with No. 5 shot, but it carried the shot a long  
way, and I was fortunate to find my bird.  
408; 1070; 290; 138; cul., & cere 35; cere 17;  
cul., 22; gape 46; tars., 78; mtc., 56; claw 21.

Iris black - cere greenish flesh color - bill flesh  
color with dusky markings on side, olivaceous brown.

July 24<sup>th</sup>, 1884. Fort Verde, Arizona.

*Pyrocephalus rubineus mexicanus*. - A female  
was seen in a large cottonwood beside the Verde River.

July 25<sup>th</sup>, 1884. Fort Verde, Arizona.

3157 *Umnus polyglottus* ♂ juv. in 1<sup>st</sup> plumage.

July 26<sup>th</sup>, 1884. Fort Verde, Arizona.

3157a Long-eared Bat *Antrozous pallidus* (No. 111) ♂ juv.  
3157b Long-eared Bat " " (No. 112) ♂ juv.

No. 112 The above are a pair of nearly fully grown  
young of the year bats, which flew in my Hospital  
ward last night. The young are dark in pelage.

3157c Long-eared Bat *Antrozous pallidus* (No. 113) ♀ juv.  
3157d. *Lepus callosus texianus*. ♀ ad. Skull.

✓ 3158. *Luraea caerulea* ♂ juv. in first plumage.  
177; 275; 86; 71; cul., 17; gape, 18.5; tars., 21.5;  
mtc., 23.5; cl., 6. Irides, hazel. Bill, olivaceous-  
brown. Tarsi & feet, plumbeous; claws, dusky brown.

✓ 3159. *Cremophila alpestris* <sup>adusta (identified by light)</sup> ~~crispata~~ ♂ juv. in 1<sup>st</sup> pl.  
166; 293; 89; 65; cul., 13; gape, 16.5;  
tars., 23; mtc., 18; cl., 6.5; hind cl., 19.5. Irides,  
hazel. Bill with maxilla horn-color at base, becoming  
blackish towards tip; mandible flesh-color at base  
shading through bluish to blackish at tip. Tarsi and  
feet dusky plumbeous; claws, brownish-black.

3160. *Tyrannus verticalis* ♀ juv. in 1<sup>st</sup> plumage.  
216; 390; 118; 94; cul., 13; gape, 26.5; tarsus, 20;  
mtc., 23; cl., 7.

Iris dark hazel - bill black - brownish  
at base of mandible, tarsi & feet plumbeous  
claws blackish.

3161. *Tyrannus verticalis* ♂ juv. in first plumage.  
222; 383; 115; 94; cul., 13.5; gape 26;  
tars., 20; mtc., 21; claw 6. Bill brownish  
black - tarsi & feet plumbeous, claws blackish -  
iris hazel.

3162. *Tyrannus verticalis* ♂ ad.  
237; 420; 133; 106; cul., 14; gape 26.5  
tars., 21; mtc., 21.5; claw 8. It was eating a  
large *Cicada* <sup>wings and all</sup> when shot, which it managed to  
swallow with some difficulty, striking it sideways on a branch  
with its beak.



✓3163 *Astragalinus psaltria* ♂ ad.  
115; 206; 63; 46; cul, 11; gape 11; tars, 13.5;  
Mtc., 15; claw 5. Not skinned.

✓3163. *Carpodacus frontalis* ♂ juv., in 1<sup>st</sup> plumage.  
152 x 255. Irides, dark hazel.

To-day, I went shooting at one o'clock, and found it quite hot although there was a pleasant breeze. The mercury stood at 109° Fahr. in the shade. (Chimney was warm work; but I went up a couple of large cottonwoods in search of nests. A nest of *Icterus bullocki*, which contained three eggs on June 21<sup>st</sup> contained but a single egg, and that contained an embryo so large that I was unable to preserve it, although I brought the nest home. This was a second brood. The nest was first found on \_\_\_\_\_, when it contained the first brood of young.

*Icterus cucullatus*. - The Hooded Oriole's nest found with young on the 21<sup>st</sup> was deserted, and I, therefore brought it home along with a used nest of *Tyrannus* sp. - - -

3163a. *Chamaeleon*. ♂ ad. *Sceloporus*  
Total length, 189. Tail from anal orifice, 78;  
nose to anal orifice, 111. Arm, 19; forearm, 15;  
hand, 21.5. longest cl., 3.5; leg, 2.2; thigh, 2.4;  
hind foot, 31; longest cl., 4

July 27<sup>th</sup>, 1884. Fort Verde, Arizona.  
✓3164. *Pyrocephalus rubinus mexicanus* ♀ ad.  
151; 256; 79; 62; nost., 10; gape, 18; tarsus, 17;  
mte., 15.5; cl., 5. Iris, hazel. Bill, tarsi and  
feet, brownish-black; claws, black.

✓3165. *Pyrocephalus rubinus mexicanus* ♀ ad.  
150; 260; 79; 64; nost., 10; gape, 18; tars., 16;  
mte., 15; cl., 5.5. Colors as above.

3166. *Empidonax pusillus* ♂ ad.  
145; 215; 67; 62; nost., 10; gape, 18.5;  
tarsus, 16; mte., 14; cl., 5. Irides, hazel.  
Bill with maxilla blackish-brown, mandible pale.

✓3167. *Icterus virens longicauda* ♂ juv. just from nest.  
No yellow subventer.

✓3168. *Arremonops alpestris adusta* (identified by Dwight) ♂ juv.  
166; 312; 99; 65; cul., 13; nost., 9.5; gape 16.5;  
tars., 22; mte., 18; claw 6.5. Iris hazel - bill  
horn color at base - then bluish shading into  
blackish at tip. Tarsi, feet & claws dull plumbeous.

3169. *Tyrannus verticalis* ♀ ad.  
218; 390; 121; 93; nost., 14; gape 26; tars., 19;  
mte., 22; claw 8. Iris hazel. Bill black-brown-  
ish at base of mandible - tarsi and feet plumbeous  
black, claws black.

3170. *Tyrannus vociferans* ♂ ad.  
240; 406; 121; 103; nost., 17.5; cul., 24; gape 29;  
tars., 20; mte., 22; claw 8. Iris hazel - bill black  
tarsi and feet dusky plumbeous - claws black.

July 29<sup>th</sup>, 1884. Fort Verde, A.T.  
✓3171. *Helminthophaga luciae* ♀ juv. in 1<sup>st</sup> plumage.  
103 x 175.  
3171a. *Empidonax pusillus*. - (This specimen was not  
skinned as its head was shot off entirely and  
I only preserve it temporarily - until a good  
specimen can be taken.) ♀ juv. in 1<sup>st</sup> plumage.  
Uttered a note like that of the Blue Grosbeak,  
but weaker.

✓3172. *Vireo pusillus*. ♀ ad. Moulting. Patch of bright feathers  
in back. 127; 183; 56; 53; nost., 8; gape, 14.5;  
tarsus, 19.5; mte., 15; cl., 5.

✓3173. *Pipilo aberti*. ♂ juv. Bird of the year.  
235; 285; 89; 120; cul. 16; gape, 17; tars., 29;  
mte., 27; cl., 9. Iris, brown. Bill with maxilla  
and tip of mandible  
dusky olivaceous-brown; residue of mandible,  
purplish flesh-color. Tarsi feet and claws,  
purplish-brown.  
There are indistinct stripes on feathers  
of breast. See Ridgway (B.N.A.C., p. ).

- ✓ 174. *Corvus corax caninus* 2 juv. in 1<sup>st</sup> plumage  
610: 1210: 395: 260: cul., 65: <sup>not</sup> gape 43:  
gape 72: tars., 63: Mtc., 63: claw 20.  
Iris hazel - bill, tarsi & feet black - claws black.
- ✓ 3175 *Lophortyx gambeli*, Nutt. ♂ ad. Moulting, but  
wing and tail in good condition.  
280: 365: 110: 98: cul., 11: not., 8: gape 12.5:  
tars., 33: Mtc 39: claw 10.

- July 31<sup>st</sup>, 1884. Fort Verde, A.T.
3176. *Buteo swainsoni* Acquiring the adult plumage.  
540: 1340: 405: 225: cul. & cere, 36: cer., 12.5:  
cul. fr. cer., 24: gape, 42: tars., 73: mte., 60:  
cl., 20.5. Iris, hazel. Cere, bright, slightly  
greenish yellow. Base of bill, greenish-yellow.  
Bill, bluish at base of both mandibles shading  
into blue-black towards tip. Tarsi and  
feet, lemon-yellow. claws, black. This bird  
is in transition plumage, and moulting.  
Stomach contained hair and flesh of *Lepus sylvaticus*  
*arizonae*, and beak & claws were covered with blood hairs.
- Chondestes grammacus*. - These birds are  
now forming flocks again as are the  
Shore Larks (*Eremophila alpestris*).
- Quisaca caerulea*. - Still in full song.
- Dendroica aestiva*. - Occasionally, but not  
frequently heard singing.
- Carpodacus frontalis*. - Rarely heard <sup>singing</sup> lately.
- Xanthocephalus icterocephalus*. A single  
female was seen in the cottonwood in our  
back yard; the first seen since spring.

- August 2<sup>nd</sup>, 1884. Ft. Verde, A.T.
- ✓ 3177. *Sayornis nigricans*, ♂ juv. Young of the year.  
187: 280: 91: 82: not., 11: gape, 20: tars., 18:  
mte., 16: cl. 5.5. Iris, hazel. Bill, black, yellowish  
at corner of mouth and at base of mandible. Tarsi  
and feet, black; claws, black. It was alone and  
able to take care of itself.

August 3<sup>rd</sup> and 4<sup>th</sup>, 1884.  
Fort Verde, A.T.

As I traversed the same ground both  
days, I will write up the ornithological  
data together. I was sent for on the night  
or early morning, rather, of the 3<sup>rd</sup>, to visit a  
Mr. Kay at the Conger Mine, twelve miles  
from the Post, northwest, among the foothills.  
On my return trip, I had to ride six  
miles down the Valley to see patients in  
the ranches, making altogether 36 miles in  
the saddle. On the 4<sup>th</sup> I covered the  
same ground (36 miles), visiting the same patients.  
The following birds were seen:

*Mimus polyglottus*. - Everywhere abundant. Usually  
found in families, the young uttering an asthmatic  
note similar to that of the *Ampelis cedrorum*.

*Harporhynchus crissalis*. - A few seen in bushy  
cañons. Have not heard it singing lately.

*Salpinctes obsoletus*. - Several were seen in  
the mud walls of little cañons up the River, and  
upon the rocks near the Conger Mine.

*Eremophila alpestris*. - On all  
the level prairies these birds were seen, sometimes  
singly or in pairs, sometimes in families or in  
large flocks. Some were seen that had apparently  
just left the nest, but the majority were strong on wing.

*Helminthophaga luciae*. - Several were seen down  
the Valley in the Verde bottom among the mesquites.

*Dendroica aestiva*. - Abundant everywhere, but  
not heard singing.



*Ictinia virens longicauda*. - Abundant in the mesquites and cottonwoods in the Verde bottom. The young utter a clucking note like the Eastern House Wren's.

*Hirundo erythrogastra*. - A few seen in the vicinity of the Post.

*Petrochelidon lunifrons*. - Abundant.

*Stelgidopteryx serripennis*. - Several seen on the Verde at Blackford's ford.

*Phainopepla nitens*. - Several were seen high up in the foothills at the Conger mine. <sup>or family of newly fledged young seen in the Verde bottom</sup>  
*Uro purillus*. - Common in the Verde Valley, still singing sweetly.

*Sturnus ludovicianus excubitorides*. - There were several families of young birds in the mesquites down the Valley, and they were occasionally seen in the foothills.

*Carpodacus frontalis*. - A few families seen in the cottonwood hedges at the ranches down the Verde. I did not hear the males singing. They do not sing about our quarters now. They were last heard a week ago.

*Astragalinus psaltria*. - A large flock is always present among some tall sunflowers down the Valley beside the River. Their loud call notes and song were heard both here.

*Melospiza fasciata*. - Singing beside the Verde.

*Anaphis spiza* *Spizella atrigularis*. - A bird, resembling those of this genus (*Anaphis*) was seen both days among the scrub oaks near the Conger mine.

*Amphispiza bilineata*. - Everywhere abundant, and singing.

*Phonostes grammica*. - Plentiful.

*Pipilo maculatus megalonyx*. - Common upon the oak-clad hillsides about the Conger mine, inhabiting especially the ravines. Utters a note like the Catbird's, and singing its pleasant song.

*Pipilo fuscus mesoleucus*. - A family of young birds with their parents were seen in

a ravine at the Conger Mine.

*Pipilo aberti*. - Common in the Verde bottom.

*Sturnella neglecta*. - Several seen in the prairie up the River on both days. Singing.

*Icterus parisorum*. - An adult male was seen in the oak bushes at the Conger mine <sup>on the 3<sup>rd</sup></sup> and a female or young near the same spot on the 4<sup>th</sup>. A nest was found in a tall bush resembling in foliage the Magnolia, near the Conger Mine, built of woven grasses softly lined. The nest was dependant but extremely shallow, otherwise resembling the nest of *Icterus cucullatus*, a species which I have never seen to inhabit the hills; but this nest hardly agrees with those described as those of *Icterus parisorum*. The nest was only 6 feet from the ground.

*Icterus bullocki*. - A few young seen in the mesquite bushes near the Post.

*Icterus cucullatus*. - An entire family was seen both days inhabiting the mesquite bushes and cottonwood hedge beside a ranch down the Verde River. The male was an especially fine bird, and uttered a loud call note resembling that of *Icterus spurius*, its nearest relative in the East.

*Corvus corax*. - These birds are usually shy in this quarter, but I rode within a few feet of several that were feeding off at the butcher's corral near the Post.

*Apelocoma woodhousei*. - Very plentiful about the Conger Mine, inhabiting the oak bushes clothing the foothills. The young were in families with their parents. They exhibited the dissimilarity of their parents; flying to a bush near me one would scream at me, then poke its bill into the bush and utter another terrific yell and then drop into the interior of the bush and utter a queer series of notes.

*Myiarchus cinerascens*. - Frequently seen in the Verde bottom. Indeed, so far as I can see, any difference in habitat between this species and *S. vociferans*, it consists in the more elevated habitat of the latter, although both species are often seen together in the Valley.

*Tyrannus vociferans*. - This bird has many notes. Its commonest call note resembles the chip-churr of the *Pyrranga rubra* somewhat, although louder & more forcibly given. The species was found in some numbers among the foothills at the Enger Mine, inhabiting in families the scattered cedars here and there seen among the oak and other shrubbery.

*Myiarchus cinerascens*. - A few seen of the plains among the mesquite bushes.

*Sayornis sayi*. - Common about the Fort. Still breeding. A few seen upon the mesquite plains.

*Sayornis nigricans*. - A few seen beside the Verde River. Have never seen it away from water. In this respect it differs from *S. sayi* which often inhabits high dry mesas and builds its nest in the <sup>dry</sup> rocky cañons far from water.

*Empidonax traillii pusillus*. - Only found in the willows, cottonwoods, etc., beside the Verde.

*Chordeiles acutifemur texensis*. - Seen in considerable numbers every evening. They begin flying before sundown. Riding along in the dusk, one often hears their very singular bubbling <sup>uttered when</sup> upon the ground.

*Coccyzus americanus*. - A family of young and old seen among the mesquites down the Valley. The species is abundant in the Valley.

*Picus scalaris*. - A few seen and heard in the cottonwood hedges and mesquite bushes in the River bottom.

*Lanius caerulea*. - Several seen in the Verde Valley.

*Spizella cunicularia hypogaea*. - A family of six or eight was seen both mornings on a mesa about five miles up the Valley and a mile west of the river. They all sat upon the ground around their burrow save one which sat on a mesquite bush a couple or three feet from the ground. All uttered a singular note and flew away from the spot & alighted upon the ground at a distance, after much soaring about in irregular circles. These are the only burrowing Owls I ever saw alive.

*Accipiter fuscus*. - One seen on the 3<sup>rd</sup>.

*Spinunculus sparverius*. - Abundant everywhere from River bottom to the mts.

*Buteo calurus*. - A number seen.

*Buteo swainsoni*. - Several seen.

*Cathartes aura*. - Abundant everywhere.

Two were soaring over the prairie grass and once alighted not two rods in front of my horse on a gallop, and sat there until I was within a few feet.

*Zenaidura macroura*. - A few are still sitting on their eggs. Large numbers of young are on wing, and I saw flocks of hundreds among the tall sunflowers beside the Verde River. They are found everywhere where a drop of water can be had.

*Lophortyx gambeli*. - Some very small young were seen. Many other flocks were seen which were nearly as large as adults. All ages were noted. One flock was seen upon an open mesa. The birds were running toward cover. There appeared to be at least two hundred in the flock. One within down the Valley shot 15 good sized birds at one shot. The cry of the young is unlike any other note of the species.



*Zonotrichia canadensis*. Saw the wing of one killed at the Conger mill on the Verde River.  
*Miguelis macularius*. - A few seen on the Verde.  
*Ardea herodias*. - Several young seen on the Verde.  
*Geococcyx californianus*. - One seen down the Valley.  
 August 6th 1884 Fort Verde, Arizona.

3178. *Spizella atrigularis* ♂.

Shot among the scrub oaks at the Conger Mine.  
 153; 207; 63; 75; cul., 10; gape 11; tars., 21;  
 Mtc., 19.5; claw 5.5. Bill reddish brown  
 faintly tipped with blackish on maxilla.  
 Tarsi & feet dusky brown claws blackish.

3179. *Peucaea ruficeps boucardi* ♂ ad.

172; 222; 67; 77; cul., 13; gape 13.5; tars., 22.5;  
 Mtc., 21.5; claw 6. Iris hazel - maxilla dusky  
 brown, mandible & lower border of maxilla flesh color  
 a base shading into plumbeous at tip. Tarsi flesh color  
 feet brownish flesh color, claws brown.

3180. *Speotyto cunicularia hypogaea* ♂

240; 610; 173; 88; cul. & cere, 20; cere 8.5;  
 cul., 13; tars., 47; Mtc., 28; claw 10.5. Iris bright  
 yellow; bill & cere <sup>hale</sup> greenish; - bare part of tarsi &  
 toes greenish flesh color with dusky scales.

claws black. gape, 23. Stomach contained insects (grasshopper).

3181. *Speotyto cunicularia hypogaea* ♂

250; 630; 180; 92; cul. & cere, 19; cere, 8;  
 cul., 14; gape 22; tars., 50; Mtc., 30; cl., 11

Colors as above. Stomach contained grasshopper & other insects.

To-day I visited the Conger Mine again. On the prairie  
 at the base of the foothills I saw a number of  
 Western Meadow Larks (*Sturnella neglecta*).

Shore Larks (*Eremophila alpestris*) were  
 seen in large flocks; chiefly young birds.

Upon the oak-covered mesa I found the  
 following species

*Aphelocoma woodhousei*. - Numerous.

*Amphispiza bilineata*. - A few families seen, not  
 as plentiful as in the Verde bottom.

*Spizella atrigularis*. - One or two families found  
 in a little cañon among the oaks. The specimen  
 shot was a male and apparently adult, although

the black on head was confined to a patch on  
 the throat.

*Peucaea ruficeps boucardi*. - This species is  
 rather numerous in families of young and parents.  
 Its alarm note is like the common call note of  
 the Eastern Song Sparrow but louder and sharper,  
 being intermediate between that and the note of the  
 Eastern Fox Sparrow. It has a curious chattering  
 note beside. It is not remarkably shy, and  
 often alights on the summit of the oak bushes  
 (which so far as my observations go it exclusively  
 inhabits) and surveys intruders upon its domain.

*Pipilo maculatus megalonyx*. - Family groups  
 of this species were numerous among the small  
 rocky cañons, the old males in full song.

*Pipilo fuscus mesoleucus*. - Several families of  
 young birds and their parents seen in the  
 wooded ravines in the hills. They are very  
 shy and skulk shyly in the brushwood like  
 mice. The old birds were occasionally heard  
 to utter their curious song.

*Geothlypis alexandri*. - One female seen.

*Icterus parisorum*. - A pair of adult birds  
 and young were seen in the oaks and  
 "magnolias" of a ravine in the hills.

*Pyrranga ludoviciana*. - A male and female  
 were seen near the Scott's Orioles.

*Geothlypis trichas*. - Several were seen  
 close to the Conger Mine, well up the mountainside.

*Mimus polyglottus*. - This species is omnipresent.

*Salpinctes obsoletus*. - A few in the cañons.

*Lophortyx gambeli*. - Very numerous in large  
 flocks near the mine and everywhere else.

*Zenaidura macroura*. - Several noted high  
 up in the hills.

*Spermophilus macrourus*. - Seen in the vicinity  
 of the Conger Mines and lower down.  
*Tamias asiaticus dorsalis*. - A small striped  
 squirrel was seen near the Conger mine supposed to be the  
 same as the species found at Whipple Barracks.

August 8<sup>th</sup>, 1884. Ft. Verde, Arizona.

3182. *Euspiza americana* ? ad.  
161: 245: 76: 65: cul., 14: gape 16.5: tars., 22;  
Mte., 23: claw 6. Iris hazel - maxilla dull tip of  
mandible dark brown, base of mandible pink  
side of mandible bluish. Tarsi & feet plum-  
beous brown - pale purplish.

3183. *Passerina amana* ♀ ad.  
136: 216: 66: 57: cul., 10.5: gape 12: tars., 16.5;  
Mte., 17: claw 5. Iris hazel, bill with maxilla  
dusky brown - mandible plumbeous - tarsi, feet &  
claws dusky plumbeous.

3184 *Passerina amana* - ? juv.  
130: 208: Bill with maxilla dusky brown  
bordered at base with yellowish white - mandible  
fleshy brown - tarsi & feet like above but tinged  
with purple. <sup>Offspring</sup> of 3183.

3185. *Oxyechus vociferus*, ♀ juv.  
278: 520. Bill black a small patch of  
orange on sides of mandible at base - eyelid orange  
red. Iris hazel. Bare part of tibia - tarsi &  
feet flesh color tinged with greenish on  
tibia bluish on joints & orange yellow on feet.  
Claws black.

~~3186~~ *Picus scalaris* ♂ (ad.?) Moulting.  
194: 344: 105: 71: cul., 24: gape, 26: tarsus,  
19.5: mte., 21: cl., 9. Not skinned.

~~3187~~ *Guiraca caerulea*, ♂ ad. 186: 288: 90: 76;  
cul., 17: gape, 17.5: tars., 22: mte., 22: cl., 7.

~~3188~~ *Astragalinus psaltria arizonae*. ♂ ad.  
118: 197: 64: 47: cul., 10: gape, 10: tars., 13;  
mte., 14.5: cl., 4.5.

~~3189~~ *Dendroica aestiva* ♂ juv. Young of the year  
3188 130 X 193. Stomach below just showing.

August 9<sup>th</sup>, 1884. Hudson's Rancho on  
Ash Creek, A. T. to Fort Verde, A. T. (Distance 20 miles).

Was ordered to Hudson's last night  
at eleven o'clock to see a soldier that had been  
kicked and dangerously injured by a mule.  
I reached my patient at 3 o'clock A.M. after  
four hours hard riding in the saddle. We  
left there with the wounded man in an  
ambulance shortly after daylight. Dozens  
of both species of Rabbits (*Lepus sylvaticus*  
*arizonae* & *L. collotis texianus*) were seen.  
The latter species was often noticed lying upon  
the ground stretched at full length upon its  
side, its head held up and ears erect looking  
at the vehicle from behind an oak bush. This  
is their favorite resting position. I once caught  
one lying flat upon its side fast asleep. At  
the time I supposed it to have been sick; as I  
had never seen, much less caught, one in that  
position before; but its vigorous kicking and  
squealing soon convinced me that its illness  
was transient.

Everywhere Gambel's Quail (*Lophortyx gambeli*)  
was seen with its young which are younger  
than most of those seen down in the Verde  
Valley. When seen in the open spaces, I  
noted that one female usually led from a  
dozen to twenty little ones. The male bird  
also accompanies the young.

*Peucaea* - This sparrow was  
occasionally seen amongst the oak bushes.  
I also thought I saw Black-chinned Sparrows.

*Pipilo fuscus mesoleucus*. - A number were  
seen usually in little cañons where a few  
cedars grow with the scrub oaks.

*Pipilo maculatus megalonyx*. - Was every-  
where plentiful and vociferous.

*Harporhynchus crissalis*. - Occasional  
upon the highest ground amongst the



scrub oak, are well seen in the Verde Valley amongst the mesquites. When making long flights it often sets its wings and soars like Lambert's Quail. The young are much darker than their parents which are much bleached.

Turkey Buzzards, Park Finches, Black-throated Sparrows, Woodhouse's Jays, and Mockingbirds were all plentiful.

The large Gray Spermophile (*Spermophilus grammurus*) was seen occasionally in the top of a scrub oak bush; doubtless eating acorns. In Copper Cañon they were numerous and often seen perched on the highest point of some rocky pinnacle. In the Cañon I saw *Salpinctes obsoletus* near the top, where our break broke and the driver being somewhat under the influence of liquor, I had enough to do to keep my seat upon the ambulance which dashed down the entire length of Copper Cañon at a reckless headlong speed, the driver whipping the four mules to keep them a head of the ambulance. We descended from a vertical height of 1700 feet, at this furious pace, to the Verde bottom, where the driver pulled up his mules to take account of stock. Our poor wounded soldier was nearly dead. He asked for whiskey and arranged his bed and got into shape for the home stretch, and soon had him comfortably ensconced in my hospital. I shall never forget that furious ride down Copper Cañon!

Not far from the head of the Cañon I saw a large (chiefly) green Whizzard, like those found on the Ash Fork road near Baughart's rancho.

Capt. Russell tells me that a large brilliant green Sizzard lives in abundance in the Red Rock Country up the Verde River.

- 3188 a Long-eared Bat. *Antrozous pallidus* ♀ ad. Total length, 125.  
No. 114. Total length, 122; nose to eye, 8; to ear, 19; to occiput, 23; root of tail, 68. Tail, from root to end of vertebræ, 52; Ear, height, 29; width, 21; Wing from carpal joint, 93; fore-arm, 55; leg, 22; hind-foot, 12; its longest claw, 3; alar toe + its claw, 10; claw, 3.
- 3188 b Little Bat. *Myotis yumanensis* ♂ ad. Total length, 77; extent, 223; nose to eye, 6; ear, 10.5; occiput, 15; root of tail, 42. Tail, from root to end of vertebræ, 35; Ear, height, 13; width, 7; Wing from carpal joint, 55; alar toe + claw, 5.5; claw, 2; fore-arm, 34; leg, 15; hind-foot + cl., 9; claw, 1.5.

August 10<sup>th</sup>, 1884. Fort Verde, Arizona.

- 3188 a Long-eared Bat. *Antrozous pallidus* ♀ ad.  
No. 114. Total length, 120; extent, 372; nose to eye, 8; to ear, 19; to occiput, 23; root of tail, 68; Tail, from root to end of vertebræ, 52; Ear, height, 29; width, 21; Wing from carpal joint, 93; fore-arm, 55; leg, 22; hind-foot, 12; its longest claw, 3; alar toe + its claw, 10; claw, 3.
- 3188 b Little Bat. *Myotis yumanensis* ♂ (ad.).  
No. 115. Total length, 77; extent, 223. Nose to eye, 6; ear, 10.5; occiput, 15; root of tail, 42. Tail, from root to end of vertebræ, 35. Ear, height, 13; width, 7. Wing from carpal joint, 55; alar toe + claw, 5.5; claw, 2. Fore-arm, 34. Leg, 15. Hind-foot + cl., 9; claw, 1.5.

August 12<sup>th</sup>, 1884. Ft. Verde, Arizona.

- 3188 c Long-eared Bat. *Antrozous pallidus* ♂ ad.  
No. 116. Total length, 118; extent, 350. Nose to eye, 9; ear, 17; occiput, 22; root of tail, 67. Tail, from root to end of vertebræ, 51. Ear, height, 29; width, 21.5. Wing from carpal joint, 86. Alar toe + claw, 10; cl. 3. Forearm, 51. Leg, 22; hind-foot + cl., 13.5; cl. 3.
- 3188 d Long-eared Bat. *Antrozous pallidus* ♂ ad.  
No. 117. Total length, 115; extent, 357. Nose to eye, 9; ear, 16; occiput, 22; root of tail, 65. Tail from root to end of vertebræ, 50. Ear, height, 28; width, 22.5.

- Wing from carpal joint, 93. Alar to & claw, 10; claw, 3.  
 Fore arm, 54. Leg, 33. Hind-foot & cl., 12; claw, 3.  
 ✓ 3189. *Lophortyx gambeli*, Nutt. ♀ juv. Shot in the top  
 of a mesquite bush where they flew for safety.  
 When flushed. 115 X 195.  
 ✓ 3190. *Lophortyx gambeli*, Nuttall. ♂ juv. Killed at same  
 shot with above specimen (no. 3189). 127 X 210.  
 ✓ 3191 *Lophortyx gambeli*, ♂ juv. Still in flock, with  
 parents.

3192 *Steganopus wilsoni*. ♀ (juv?) Probably in first  
 plumage. Phalarope. This bird  
 was feeding alone upon the sandy margin of the  
 Verde River. When I fired at it, uttering a  
 plaintive whistle not unlike the Killdeer's and  
 soon dropped dead upon the middle of the  
 River and floated down stream until it  
 lodged upon a pebbly island, where I had  
 prepared to swim out after it, when a sudden  
 sand storm and high wind struck us and  
 carried my bird out into the channel. It  
 floated down stream a good way before I  
 caught up with it in my bare feet. The flying  
 sand cut my bare skin and the wind blew away  
 my trousers, so that I could not dress until  
 the storm in a measure abated.

237; 435; 134; 60; cul., 33; gape, 37; tars., 36;  
 bare part of tibia, 20; mte., 32; cl., 5.6.  
 Irides, dark hazel. Bill, black. Bare part of tibiae  
 and tarsi, dusky, greenish, orange-yellow. Feet, dusky  
 orange above; bright orange below; claws, black.  
 The bones were hard and ovary well developed.

August 13<sup>th</sup> 1884. Fort Verde, Arizona.

- ✓ 3193. *Pyrocephalus rubinus mexicanus* ♂ ad. This  
 specimen is moulting, but the old terminal rectrices  
 & remiges are left, and hence the measurements are  
 accurate. Plumage strongly tinged with yellow  
 in the red. Irides, dark brown. Bill, tarsi and  
 feet, brownish-black; claws, black.

- 155; 263; 80; 63; cul., 14; post., 9; gape, 18;  
 tars., 17; mte., 16; claw, 6.  
 ✓ 3194. *Pyrocephalus rubinus mexicanus* ♂ juv.  
 150; 261; 79; 62; cul., 14; post., 9; gape, 18;  
 tars., 17; mte., 15; claw, 5. Iris hazel, bill brownish  
 black, tarsi & feet blackish, claws black. Sides  
 of chest, lining of wings & flanks pale sulphur  
 yellow, similar indistinct coloring on rump.  
 3195. *Empidonax obscurus* ♀ ad.  
 148; 223; 66; 61; cul., 14.5; post., 9.5; gape, 19;  
 tars., 18; mte., 13.5; claw 5. Iris hazel, bill with  
 maxilla black - basal half of mandible yellowish  
 the residue brownish black - tarsi, feet & claws black.  
 3196. *Passerina amoena* (Say) Gray juv.  
 136; 220; 70; 57; cul., 10.5; gape 12; tars., 17.5;  
 mte., 17; claw 6. Iris hazel, bill olive brown  
 tarsi & feet plumbeous brown. Claws light brown.  
 ✓ 3197. *Tringoides macularius* juv.  
 190; 334; 104; 56; cul., 21; gape 23; tars., 22;  
 bare part of tibia 10; tars., 22; mte., 22; claw 3.5.  
 Bill with maxilla black - mandible greenish at  
 base shading into black towards tip, bare part  
 of tibia, tarsi & feet yellowish olive - claws black  
 Iris hazel.  
 ✓ 3198. *Oxyechus vociferus*  
 275; 505; Not skinned.  
 ✓ 3198. *Oxyechus vociferus*  
 288; 525; 168; 132 (to end of elongated middle feather)  
 cul., 19; gape 23; bare part of tibia 19; tars., 37;  
 mte., 25; claw 6.  
 3199 *Buteo swainsoni* ♂ juv.  
 490; 1250; 390; 220; cul. & cere 30; cere 12;  
 cul., 20; gape 37; tars., 68; mte., 54; claw 18.  
 Iris hazel, cere & skin along gape, pale yellowish green,  
 bill bluish horn color at base of mandible &  
 at lower angle at base of maxilla, residue  
 blackish, claws black bare part of tarsi & feet  
 pale lemon yellow. See note over the page.





August 15<sup>th</sup> 1884. Ft. Verde, Arizona.

~~22049~~. Little Short-eared Bat. *Myotis lucifugus longicus* <sup>Pad.</sup>  
No. 118. Total length, 94; extent, 230; nose to eye, 7.5; ear, 12.5; occiput, 17; root of tail, 54. Tail, from root to end of vertebrae, 40; ear, height, 14; width, 9.5; Wing, from carpal joint, 60. Alar, ~~to~~ + cl., 5; cl., 1.5; Fore-arm, 36; Leg, 16.5; Hind-foot + cl., 8.5; cl., 1.5.  
Note. On August 8<sup>th</sup> I saw three Snipes which I thought were *Solanus solitarius*. I have seen them every day since, that I have been along the River. Yesterday, I saw but one.

August 16<sup>th</sup> 1884. Fort Verde, Arizona.

3205. *Trochilus alexandri*. ♂ ad.  
100; 116; 45; 31; cul. fr. feathers, 18; gape, 23; tarsus, 4.5; mte., 7; cl., 3.
3206. *Trochilus alexandri*. ♂ ad.  
99; 112; 43; 30; cul. fr. feathers, 18.5; gape, 23; tarsus, 4.8; mte., 7; cl., 3.2.
3207. *Trochilus alexandri*. ♂ ad.  
96; 110; 41; 29; cul. fr. feathers, 18; gape, 23; tarsus, 4.5; mte., 7; cl., 3.
3208. *Selasphorus rufus*. ♂  
98; 110; 43; 30; cul., fr. feathers, 18; gape, 22; tarsus, 4.5; mte., 7; cl., 3.
- Selasphorus rufus*
3209. 98; 117; 45; 29; cul., fr. feathers, 18; gape 23; tars., 5; mte., 7; cl., 3.
3210. *Selasphorus calliope*. ♂ juv.  
86; 108; 43; 25; cul. fr. feathers, 14.5; gape 18.5; tars., 4.5; mte., 6.5; cl., 2.5.
3211. *Selasphorus platycircus*. ♂ juv.  
102; 118; 45; 30; cul. fr. feathers, 18; gape 23; tars., 5; mte., 7.5; cl., 3.
3212. *Selasphorus calliope*. ♀  
87; 108; 43; 27; cul. fr. feathers 15; gape 19; tars., 4; mte., 6.5; cl., 3.

3213. *Buteo swainsoni* 2 juv. Just from nest.  
480; 1150; 365; 210; cul. + cere, 30; cere 13; cul., 19.5; gape, 41; tars., 66; mte., 53; cl., 18.  
Colors same as 3199.

3214. *Buteo swainsoni*. ♀ juv. Just from nest.  
480; 1180; 370; 220; cul. + cere, 31; cere 15; cul., 19; gape 37; tars., 65; mte., 53; cl., 19.  
Colors same as above.

~~3214a~~ *Spermophilus grammurus*. <sup>Pad.</sup>  
119. Rock Squirrel. Nose to eye, 27; ear, 55; occiput, 67; root of tail, 265. Ear, height, 27; width, 20. Distance between outstretched fore-feet, 270. Fore-arm, 41; fore-arm, 44; longest claw, 10; Leg, 58; hind-foot, 51; longest claw, 9.5. Tail from root to end of vertebrae, 205; hairs, 250.  
Total length, 510.

Nose to outstretched hind foot, 383.  
Mammage 10. Shot in a mesquite bush in the Verde bottom at the root of which was its hole. Its pouch was filled with kernels of the Mesquite.

~~3214b~~ *Castor fiber canadensis pondator*. Beaver. ♂ ad.  
120. Total length 1120. Nose to eye, 67; ear, 140; occiput, 161; root of tail, 825. Ear, height, 40 (to end of hairs, 48); width, 47. Arm 90; fore-arm from joint, 100; from elbow, 118. Fore-foot, 73; longest claw, 27. Distance between outstretched fore feet, 540. Leg, 173; hind foot, 143; longest claw, 27. Tail measured from hairs 275; from anus, 260; width, 125. Upper incisor teeth, length from gums, 27. Lower incisors, length from gums, 39. Width of each upper incisor, 9; of both together at apex, 18; at base, 21.5. Width of each lower incisor, 9; of both together at apex, 18; at base, 20. Width of outstretched hind-foot, 170. Claws of fore-foot: 1<sup>st</sup> = 20; 2<sup>nd</sup> = 22; 3<sup>rd</sup> = 22; 4<sup>th</sup> = 25; 5<sup>th</sup> = 18. Claws of hind-foot: 1<sup>st</sup> = 19; 2<sup>nd</sup> = 21; 3<sup>rd</sup> = 27; 4<sup>th</sup> = 26; 5<sup>th</sup> = 18.

I saw this Beaver a good way above mine in the Verde River, about three (3) miles above the



Post, floating like a piece of drift-wood low in the water. For some time I was uncertain as to whether it was an animal or otherwise; but I soon saw it move its head up and down slightly, and then I felt sure that it was a Beaver - the first one I ever saw! Every walk I have taken along the banks of the Verde River has shown me the evidences of the abundance and ~~plentifulness~~ industry of this singular beast. Large Cottonwood trees will be seen half gnawed down one day, and on the next occasion that I visit the spot the tree is seen prostrate. Large numbers of Cottonwoods have been cut down by them during the past two months; and in some places very few trees near the water and some good-sized ones at quite a distance have been cut, and the spot looks like a clearing made by the woodman's ax. The saplings are frequently dugged to form a large burrow beside the river bank, in doing which, well made paths are swept in the sand and clay. I have not seen any typical Beaver dams yet, although the remains of several old ones are situated near the Post. Notwithstanding the plentifulness of evidences of Beavers, I have not seen a single one before this, although I have forded the River at night and in the evening many times. I may as well note that to-day was dark and I had just been ducked by a heavy rain before I saw the Beaver floating up the River. He soon began to swim slowly down the channel. I was concealed behind some debris in a small willow tree, and awaited his approach with my gun at my shoulder. When he got nearly opposite, I fired my heaviest charge of shot at the ~~top~~ top of his head which was all that was visible above the water; but

a fortunate shot struck his eye, and penetrated ~~into~~ brain. It floundered for a moment, and then died and tried hard to remain under water, but became exhausted and crawled out of the channel upon the ~~shallow~~ sand flat on the opposite side where the water was shallow, and, before it could get in deep water again I shot it again. It stopped and hunched up its back and showed its strong brown ivory scutes, and, having no more large shot, I seized the opportunity to rush across the channel, and gave the Beaver a tremendous whack across the back with my gun-barrel, crushing the vertebrae and "laying him out". It was so large and heavy that I was barely able to carry him to the bank and tie him up to a "box elder" tree on the shore ~~where~~ so that his tail cleared the ground. Then I rode home, having no way of carrying the beast in to the Post, and returned after dinner on "Sally" my white mare, with a sack, and packed in my first ~~specimen~~, which, from the dimensions given will be seen to be an extraordinarily large and old specimen.

Buteo swainsoni. - The two young Buteos were screaming (whistling) in a large Cottonwood across the Verde. As I felt certain they would allow me to get near enough for a good shot, I did not hesitate to wade across the river and get my boots filled with water. They whistled loudly, evidently calling for food. I shot one, and the other sat calmly upon the limb from which its companion had just tumbled, and soon shared its fate. The parents soon came about the spot, at first soaring at a great height and both uttering a loud quavering cry. The female kept ascending and circling nearer the tree until I thought I could

her, which I probably did. After my shot she flew low straight away and alighted on a bush, but soon she began soaring round with her mate, but they did not come near the tree again.

The two species of Humming birds (*Trochilus alexandri* and *Selasphorus*) were feeding exclusively about some tall yellow flowers, on herbaceous, branching stalks and bearing whorled leaves which resembled *Sesuvium*. To which family the plant may belong.

The hummers were so numerous that I shot ten in one spot. Both species uttered a loud squeaking note, and one uttered a succession of notes which might be called a song. I could not see which species it was as both were numerous and constantly dancing about the yellow bushes, with much whirring and fighting. One came and hovered within six inches of my nose for several seconds while I was picking up a dead bird in the center of the bushes. Up to this time I have not seen humming birds in any numbers.

August 18th, 1884. Ft. Verde, Arizona

3215. *Ardea herodias*. juv.  
Length to end of claws, 1520; 1185; 1820; 440;  
1810; culmen, 135; gape, 175; bare part of tibia,  
130; tarsus, 189; Mtc., 121; claw 15.  
Iris yellow next to pupil, shading  
outwards to red. Bill with maxilla & upper edge  
of mandible blackish - ~~the~~ yellowish patches be-  
low nostrils - residue of mandible greenish yellow.  
bare part of tibia greenish gray. Tarsi feet &  
claws blackish. Under part of feet clear flesh  
color showing a sharp line of demarcation  
between the black dorsal and flesh-colored  
ventral surfaces of feet. Stomach contained a  
bolus of fish-bones and scales and thin bones of frogs.

3216.

3216. *Trochilus alexandri*. ♂ ad.  
97:113:44:29; cul., from feathers 19; gape 23;  
tars., 4.5; Mtc., 6.5; claw 3.

3217.

- Trochilus alexandri*. ♂ ad.  
98:113:44:29; cul., from feathers 19; gape 23.5;  
tars., 4.2; Mtc., 6.5; claw 3.

3218.

- Trochilus alexandri* ♂ ad.  
101.5:115:44:30; cul., from feathers 19; gape 23;  
tars., 4.5; Mtc., 7; claw 3.

3219.

- Trochilus alexandri* ♂ ad.  
99:104:43:30; cul., from feathers 20; gape 24;  
tars., 4.5; Mtc., 7; claw 3. Iris dark hazel - all  
feet & claws black. 3216 to 3219 color the same.

3220.

- Selasphorus rufus*. ♂  
95:110:43:28; cul., from feathers, 16; gape 21;  
tars., 5; Mtc., 8; claw 3.

3221.

- Selasphorus rufus*. ♂  
95:110:42:29.5; cul., from feathers, 16; gape 21;  
tars., 5; Mtc., 8; claw 3.

3222.

- Selasphorus rufus*. ♂  
96:115:44.5:30.5; cul., from feathers 18;  
gape 22.5; tars., 5; Mtc., 8; claw 3.5.

3223.

- Selasphorus platycercus*. ♀  
97:117:45:30; cul., from feathers, 18; gape 22;  
tars., 5; Mtc., 7.5; claw 3.

3224.

- Selasphorus Trochilus calliope*. ♀ juv.  
83:113:44:27; cul., from feathers, 15; gape 19;  
tars., 4.5; Mtc., 7; claw 3. Color same as *Trochilus*.

3225.

- Dendroica aestiva*. ♀ juv.  
122:181:57:48; nost., 7.5; gape 13; tars., 18;  
Mtc 15; claw 5.

Iris hazel, bill with maxilla brownish black  
mandible flesh color tarsi & toes plumbeous  
brown bottom of feet & claws yellowish  
*Cathartes aura*. - A large flock of Buzzards  
is always seen about the large cottonwoods  
up the river. They are fond of walking in  
companies along the margin of the River in  
search of dead fishes and other perquisites.



August 19th 1884 Fort Leavenworth, Ariz.  
 121. Long-eared Bat, *Antrozous pallidus*. ♂.  
 Total length, 110. Ext. ear, 34.0. Nose to eye, 7.  
 ear, 15; occiput, 21; head to ear, 39. (ear from root to end of ear, 51).  
 30.49; breadth, 21. Arm, 51. Alar bone and  
 claw, 9; claw, 2.5. Wing from carpal joint, 84.  
 hind foot to end of claw, 12; claw, 2.5.  
 22. *Caryacus*

122. *Castor fiber* (Frontator). Beaver ♀ juv.  
 Total length, 630. Nose to eye, 48; ear, 90;  
 occiput, 113; ear, 406; end of ear to  
 base, 403. Ear height, 30 (to end of ear, 35);  
 breadth, 31. Arm, 5-8. Fore arm: from joint  
 62; from elbow 75. Fore foot, 52; claw, 15.  
 Distance between outermost fore-feet, 370.  
 Leg, 1.4; hind foot, 99. Hind claw, 17.  
 Tail, measured from base (below), 167.80; from  
 anus, 224; great width, 63. Upper incisor  
 length from gums, 13; width of each at  
 apex, 5.5; width of both together at apex, 11; at  
 base, 13. Length of lower incisor teeth from gums,  
 15; width of each at apex 5.5; width of both  
 at apex, 11; at base, 13. Breadth of outspread  
 hind-foot, 110. Claws of fore foot: 1st, 12;  
 2nd, 14; 3rd, 15; 4th, 14.5; 5th, 11.  
 Claws of hind-foot: 1st, 13; 2nd, 15; 3rd, 17;  
 4th, 17; 5th, 12.

Just as I was in Sibbo  
 and I went up the river in search of Great  
 Blue Herons. Sibbo carried a rifle for long  
 range shooting and took my shotgun. About  
 two miles up the river we found a place where  
 Beavers have been hard at work cutting  
 cottonwood-trees, and topping off the branches  
 close to the trunk. Well-worn paths had been  
 made by them when carrying the branches to the  
 river. I was walking slowly and cautiously  
 in the shadow of the cottonwoods at a place  
 where the river-bank is quite high, when I saw  
 a ripple proceeding from the nearer shore  
 beneath the jutting roots and brushwood.

I crept stealthily to the shore and saw a great  
 commotion on the surface of the water, in fact  
 the whole stream was quaking with the rapid  
 motion of some animal beneath the surface.  
 Soon a huge Beaver burst up from  
 the shallow water on the opposite side and  
 came out with a small r. It was  
 probably an old Beaver, apparently giving  
 instructions to her family of little  
 Beavers. I put their lesson short by pulling  
 both triggers of my shotgun. There was a great  
 splash, and the water seemed fairly to boil for  
 a moment, and then only the spasmodic  
 kicking and flapping of a wounded Beaver was  
 heard. I plunged into the river but upon getting  
 my gun before it rose and I effected the  
 escape, and carried my gun along the strip  
 with me. I had done successfully once before.  
 I seized the animal by the foot as it swam  
 towards me under water, but, fearing it  
 might bite me severely, I let go of it, when  
 it swam down the current. I ran after it  
 and just managed to seize its tail as it  
 sank deep into a quicksand from which  
 I escaped by seizing a tree which was a  
 part of the dam they are building. The  
 specimen was a well-grown Kitten,  
 but, having already shot a fine large old  
 one, I was even more pleased with the  
 young one than the old one. I have seen with  
 an adult. I walked up the river  
 a considerable way, but the night was  
 too dark for good shooting in case we  
 saw more Beavers, and we also wanted  
 to reach them complete their dam, and  
 so concluded not to molest them any  
 further until the dam is built and the  
 danger of them during the spot  
 lessened.

August 21<sup>st</sup>, 1884 Fort Verde, Arizona.  
 3226. *Myiarchus cinerascens* ♂ ad.

188; 320; 91; 54; cul., 21; gape, 35; bare part of tibia, 10; tarsus, 22; mtc., 23; claw, 4.  
 Breast spotted. Before shooting this specimen, I was uncertain whether this species in winter assumes the immaculate under plumage of the young. A change later, however.

Castor fiber. — This evening I repaired to the spot where I shot the young Beaver, and I told by the moonlight that it was pitch dark. I saw one large one at rest on their dam, but it flapped its tail on the water and slid up stream, and I lost it as it went. When it got dark I went over the stream looking in the water, and flapping their tails on the ground with a sharp thud from time to time, but I could see nothing, as the night was dark, save when a distant flash of lightning illumined the water for a second.

All species of Hummingbird with buzzed about the garden lily flowers amongst which I was lying. I supposed they are Cissas.

August 22<sup>nd</sup>, 1884 Fort Verde, Arizona.  
 3227. *Accipiter cooperii* ♂ juv.

430; 755; 235; 220; cul. + cere, 23; cere, 9; cul., 16; gape 25; Tars., 65; Mtc., 52; claw 13.  
 Iris pale straw color - tarsi + feet greenish yellow. claws blue-black. cere + along gape greenish yellow. bill bluish at base of mandibles shading into black. Shot in act of killing chickens.

3228. *Hydrochelidon* ♂ juv.

345; 590; 200; 74; cul., 27; gape 37; bare part of tibia — 8; tars., 16.5; Mtc., 22; claw 6.5.

Iris 2/3 black slightly reddish on rami of lower mandible toward base - iris hazel Tarsi + feet reddish brown - blackish from webs. claws black.

3229 *Trochilus alexandri* ♂ ad.  
 97; 111; 44; 26; cul., from bottom, 19.5; gape 23; tars., 4.5; Mtc., 7; claw, 3.

*Trochilus alexandri* ♂ ad.  
 3230 98; 112; 45; 30; cul., from feathers, 18.5; gape 23; tars., 4.5; Mtc., 6.5; claw 3.

3231 Hummingbird ♀  
 102; 122; 48; 30; cul., fr. feathers, 19.5; gape 24; tars., 4.5; Mtc., 8; claw 4. Bill hazel, but black + orange on rami of mandible at base, tarsi, feet + claws, black.

3232 Hummingbird ♀  
 100; 118; 45; 29; cul., fr. feathers, 21; gape, 25.5; tars., 5; Mtc., 7; claw 3. Edge of wing white - iris hazel - bill - legs, feet + claws, black.

Castor fiber. — The Beavers are putting forth strenuous efforts to cut down all the timber near their dam. I am interested to see whether they will actually succeed in cutting down some of the large trees from which they have stripped the bark and consumed the wood. Some of them are two feet or more in diameter; but they have cut two of the largest trees there, and it is probable that the others will soon follow. The limbs have been cut off of the felled trees at the trunk and carried off. To cut some of them the animals had to climb along the trunk to a position ten or fifteen feet above the ground. There are numerous slides in the vicinity and they are well worn and cleanly brushed with the leafy boughs which have been dragged down them. To-night, I waited at the spot until dark, but no Beavers appeared. While lying beneath the branches of a prostrate cottonwood the various feathered denizens of the spot became very familiar. A flock of Gambel's Quails ran into my brushy retreat, but, on seeing me, seemed startled with fear, and whirled off with much "cackling" as soon as they had sufficiently recovered.



Mourning Dove, in pairs, when  
 evening was with much noise. Later in evening  
 the hummingbirds were very numerous. Hummingbirds  
 of many species were seen. and the hummingbirds were  
 very numerous. A pair of Blue Grosbeaks  
 were instructing the young in the nest of  
 the egg. The birds, with their younglings  
 spotted and were winging their  
 way gracefully up or down the ribbon curved  
 wings, making the air ring with the pleasing  
 notes of their notes. The count of  
 the first Blue Grosbeak, was seen as they were  
 as the birds sailed past, with streaming  
 legs on broad pinions. The doves  
 were doing in numbers on the margin  
 of the stream. And the notes of  
 about a dozen of small birds were  
 heard. After darkness had thrown  
 its veil over the landscape, and the  
 still nightingale and distinct sound  
 of whistles, I often heard the song of the  
 Black-throated Sparrow (*Amphispiza bilineata*)  
 Shot in the pine home.

3233\* *Tringa minutilla* ♂ (ad?)

144:260:86:40: cul., 17: gape, 17.5: bare part of  
 tibia, 15: tars., 20: Mtc., 21: claw 4.5. Iris hazel,  
 bill black, bare part of tibia tarsi & feet dusky.  
 feet & claws black.

3234\* *Tringa minutilla* ♀ (ad?) part  
 154:300:91:45: cul., 19: gape 20: bare of tibia 15:  
 tars., 21: Mtc., 21: claw 4.

3235. *Tringa bairdii* ♂ (ad?).  
~~*Tringa alpina*~~  
 174:315:98:45: cul., 26.5: gape 26: bare part of  
 tibia 16: tars., 24: Mtc., 22: claw 4. Iris hazel - bill  
 black bare part of tibia & tarsi brownish black  
 feet & claws black.

3236 *Tringa bairdii* ♀ (ad?).  
~~*Tringa alpina*~~  
 174:315:100:48: cul., 26.5: gape 26: bare part  
 of tibia, 15: tars., 22: Mtc., 21.5: claw, 4.5. Colors same  
 as above.

3237\* *Agrecha tigris* ♂ ad.  
 235:500:158:85: cul., 18: gape 22: bare part of  
 tibia 18: tars., 33: Mtc., 25.5: claw 5.5.

3238\* Hummingbird, *Trochilus calliope* ♂ juv.  
 88:110:44:22: cul., from feathers, 17: gape 20.5:  
 tars., 4: Mtc., 6.5: claw 3. Iris hazel, bill black  
 mandible brownish yellow at base - tarsi, feet  
 and claws black.

3239\* Hummingbird *Trochilus calliope* ♀.  
 86:107:42:21.5: cul., from feathers, 15.5: gape 19.5:  
 tars., 4.5: Mtc., 7: claw 3. Colors same  
*Guiraca caerulea*. ♂ juv.

3240. 176:278:86:72: cul., 15.5: gape 17.5: tars., 19:  
 Mtc., 22: claw 6.5. 16.5: Iris hazel -  
 bill purplish slate color - pinkish purple on  
 mandible, tarsi & feet plumbeous brown, claws black.  
*Colaptes auratus mexicanus*. One seen  
 the Fort Snelling.

*Bubo virginiana* mex. - One seen from a row  
 of cottonwoods up the river. The only one I  
 have seen in the Verde Valley. I saw a  
 nest full of young ones on the stage road  
 between Ash Fork and Hell Canyon the last trip;  
 and, at Ash Fork, Dr. <sup>Pickens</sup> ~~Pickens~~ showed me a  
 pair of young ones which an Indian gave him.  
 I have seen no others in Arizona.

3240a. *Neotoma lepida* ♂ juv.  
 Shot August 22<sup>nd</sup>, 1884. Skull only,  
 preserved, as the animal ejected its  
 scent after it was shot. White-laced Shrike

August 25<sup>th</sup>, 1884. Ft. Verde, Arizona.

- 3241 *S. trichas* *versicolor* ♂ juv. Bird of the year.  
length to end of cul. 615; length 480; 740;  
200; 70; cul. 54; gape 75; bare part of tibia  
30; tars. 55; mte. 58; claw 9.5. Irides yellow.
- 3242 *S. trichas* *versicolor* ♂ ad.  
111; 105; 42; 30; cul. fr. feathers, 17; gape, 21;  
tarsus, 5; mte., 7; cl. 3.  
Iris brown. Bill black, slightly lined  
above with very upper border of mandible  
black. Feet and claws, black.
- 3243 *S. trichas* *versicolor* ♂ juv.  
75; 107; 42; 30; cul. fr. feathers, 11; gape, 20;  
tarsus, 5; mte., 6.5; cl. 3. Colors like No. 3242.
- 3244 *Salasphorus* *versicolor* ♂ juv.  
75; 111; 45; 29; cul., 17; gape, 20.5; tars., 4.5;  
mte., 6.2; cl. 3. Colors as above.
- 3245 *Salasphorus* *versicolor* ♀ ad.  
48; 115; 45; 30; cul., from feathers 18; gape 22;  
tars., 5; mte., 7.5; claw 3.
- 3246 *Salasphorus* *versicolor* ♂ juv.  
47; 117; 45; 30; cul., from feathers 18.5; gape 22.5;  
tars., 5; mte., 7.5; claw 3.
- 3247 *Trochiloides* *calliope* ♂ juv. 1<sup>st</sup> plumage.  
86; 105; 40; 25; cul., from feathers 16; gape 20; tars., 4.5;  
mte., 6.5; claw 3.
- 3248 *Circus* *latirostris* Bourc. *Circus* *humboldtii* ♀ ad.  
104; 122; 48; 31; cul., from feathers, 20; gape 24;  
tars., 5; mte., 8; claw 3.
- 3249 *Circus* *latirostris* Bourc. *Circus* *humboldtii* ♀ ad.  
101; 120; 48; 31.5; cul., from feathers, 21; gape 25;  
tars., 5.5; mte., 7.5; claw 3.
- 3250 *Circus* *latirostris* ♀  
104; 126; 50; 32; cul., from feathers, 21; gape 25;  
tars., 5.2; mte., 8.5; claw 3.5.
- 3251 *Circus* *latirostris* ♀  
104; 126; 49; 30; cul., from feathers 21; gape 25;  
tars., 5; mte., 7.5; claw 3.

- 3252 *Circus* *latirostris* ♀  
102; 118; 46; 30; cul., from feathers, 21; gape 25;  
tars., 5; mte., 8; claw 3.5.

*Circus* *humboldtii* - Tracks seen near the Verde  
August 26<sup>th</sup>, 1884. Ft. Verde, Arizona.

*Zamelodia melanocephala*. - One female  
seen in the meadows of the Verde bottom.  
*Butorides virescens*. - Gilbo shot a Horn  
Heron near the mouth of Beaver Creek; but  
it hid in the brush, after swimming to shore  
with a broken wing, and could not be found.  
*Mephitis mephitis*. - I shot a Skunk near  
it was seen beside the Beaver Creek  
after dark; but it fled to its hole so  
fast I could not meddle with it, although  
I hope to get it some day later.

- 3253 *Circus* *latirostris* ♀ ad.  
105; 125; 50; 30; cul., from feathers, 22.5; gape, 27;  
tarsus, 5; mte., 7.5; cl. 3.
- 3254 *Circus* *latirostris* ♀ juv.  
265; 493; 154; 123; cul., 21; gape, 23;  
bare part of tibia, 23; tars., 25; cl., 5.
- 3255 *Oxyechus vociferus* ♀ juv.  
265; 478; 155; 120; cul., 31; gape, 23.5;  
bare part of tibia, 22; tars., 26; mte., 26; cl., 5.
- 3256 *Oxyechus vociferus* ♂ juv.  
268; 485; 155; 124; cul., 21; gape, 23;  
bare part of tibia, 22; tars., 23.5; mte., 25;  
claw, 5.3. Eyed, or - . Irides brown.  
Bill, black, with a small patch of orange just at  
base of lower mandible (lower side of mandible).  
Bare part of tibia, etc., greenish flesh-color; feet,  
tinged with orange and joints dark, claws, black.  
All three above colored like on soft plumage.



August 27<sup>th</sup>, 1884. Ft. Verde, Arizona.

3257. *Cathartes mexicanus mexicanus* ♀ ad.  
153; 185; 58; 55; cul, 17; nost, 13;  
gape, 22; tarsus, 17; mte., 17; cl., 5.  
This bird came to Mr. Jordan's house  
and the second in catching flies.  
It caught its fly in the screen door and  
was caught and kept as a pet.
3258. *Butorides hudsonius*. ♂ (juv.)  
475; 1090; 345; 240; cul & cere 26; cere 10;  
cul, 17; tars., 70; mte., 45; claw 15; gape 29.  
Iris yellowish, cere dusky & whitish. Bill bluish  
on sides of maxilla & base, and on basal half of  
mandible, rest black. Tarsi & feet lemon  
yellow - claws black. Caught one of Jordan's chickens  
He shot it & brought it to me.

*Butorides virescens*. } 2 specimens of Beaver Creek.

*Ardea herodias*

3259. *Sayornis sayi*. ♀ ad. moulting.
3260. *Actinia vitrea longicauda* ♀ juv.  
The following is a description of a fish  
(*Catostomus*) caught in  
the river. The specimen  
is below the average size, but was the only  
one caught:-  
Length, 280. Tail, 48.  
Snout to occiput, 55; to eye, 23; operculum, 63;  
Depth of eye, 8.5; of head at orbit, 32. Length of  
dorsal fin, 7; height, 38. Length of pectoral, 18;  
height, 34. Length of anal, 51. Depth of  
pectoral fin, 41. Depth of body midway  
between occiput & dorsal fin, 154.  
Fin rays: Caudal, 18; Dorsal, 12; Pectoral,  
16; Ventral, 9; Anal, 8. Scales in lateral  
line, 60. Interorbital space 23 mm.  
Length of eye, 9.5. Upper lip with five rows  
of tubercles. Lower lip also full with ten or  
more rows of tubercles.

3261. *Selasphorus rufus*. ♂ juv.  
97; 114; 43; 29; cul, from feathers 18; gape 22;  
tars., 5; mte., 7; claw 3.
3262. *Selasphorus rufus*. ♂ juv.  
94; 111; 43; 28; cul, from feathers 16; gape 20;  
tars., 4.5; mte., 6.5; claw 3.
3263. *Selasphorus rufus*. ♀.  
92; 108; 42; 26; cul, from feathers, 17; gape 21;  
tars., 4.5; mte., 6.5; claw 3.
3264. *Selasphorus rufus*. ♀.  
82; 103; 39; 24; cul, from feathers 14; gape 18;  
tars., 4; mte., 6; claw 2.6.
3265. *Circus latirostris*. ♀ ad. 24.5.  
103; 117; 49; 30; cul. from feathers 20; gape 27;  
tars., 5; mte. 7.5; claw 3.

August 27<sup>th</sup>, 1884. Ft. Verde, Arizona.

3266. *Circus latirostris*. ♀ ad.  
103; 125; 49; 30; cul., 20.5; gape, 24.5; tarsus,  
5; mte., 7.7; claw, 3.2.
3267. *Lanius ludovicianus excubitorides* ♀ ad.  
233 X 323. Moulting.
3268. *Oreoscoptes montanus*. ♀ ad.  
237; 315; 96; 97; nost, 11; gape, 25; tarsus, 31;  
mte., 16; cl., 6. Bill, yellow. Irides, yellow.  
Feet, with some of maxilla, with dark edge;  
yellow along gape. Culmen, dusky. Irides,  
yellow. Bill, and claws, black; Tarsi,  
yellow and under side of feet, yellow.
3269. *Sitta carolinensis*. ♀ ad.  
149; 205; 64; 70; cul., 9.6; gape, 10; tars., 18;  
mte., 17; cl., 4.6. Irides, hazel. Bill with  
maxilla yellow, brown, mandible black. Tarsi,  
feet and claws, brown with a plumbeous  
shade.
3270. *Zonotrichia querula*. ♂ juv.  
415; 635; 172; 84; cul., 11; gape, 53; tars., 34;  
mte., 10; mte., 47; tars., 9.





To-day, I escorted Mrs. Lieut. Steever from Fort Verde where she was visiting to Hudson's Ranch on Ash Creek, where Lieut. Steever met her. I returned by the Mail buckboard via Cherry Creek, the trip consuming the whole day. The following birds were noted:

*Harporthynchus crissalis*. - A number seen in the vicinity of Hudson's, and thence through Cherry Creek into the Verde bottom, where they are fairly common.

*Sialia mexicana*. - Several small flocks were seen in the timber country of Cherry Creek. None have been seen in the Verde bottom since spring.

*Sitta pygmaea*. - Quite numerous in the pines of Cherry Creek.

*Cathartes mexicanus conspersus*. - One seen in a little Cañon in Cherry Creek.

*Eremophila alpestris*. - In flocks.

*Dendroica aestiva*. - Everywhere abundant.

*Geothlypis trichas*. - In the Verde bottom. The exact subspecific designation of the Verde Yellowthroats I have not made out. Brewster's Arizona specimens were intermediate between the Mexican var. *melanops*, and his recently instituted (See Bull. U. S. G., vol. VIII, No. 3, p. 158., July, 1883) var. *occidentalis*.

*Icteria virens longicauda*. - Verde Valley.

*Pyrranga ludoviciana*. - Abundant in the timber at Cherry Creek.

*Tachycineta thalassina*. - Plentiful in one locality.

*Petrochelidon lunifrons*. - Abundant.

*Phainopepla nitens*. - Several on Cherry Creek.

*Vireo pusillus*. - In the Verde bottom.

*Lanius ludovicianus excubitorides*. - Abundant, or at least common and general in its distribution, and somewhat noisy.

*Carpodacus frontalis*. - Generally distributed in families.

*Astragalinus psaltria*. - Common.

*Melospiza fasciata*. - Verde Valley.

*Amphispiza bilineata*. - Everywhere abundant.

*Junco hiemalis*. - I thought I

heard a Snowbird in Cherry Creek Cañon.

*Calamospiza bicolor*. - One flock in Verde Valley.

*Zamelodia melanocephala*. - One pair

on Cherry Creek in oak and juniper woods.

*Pipilo maculatus megalonyx*. - Everywhere

plentiful except in the Verde Valley.

*Pipilo aberti*. - Everywhere common.

*Sturnella neglecta*. - Several between the

settlement on Cherry Creek and the Verde

bottom in some little prairies. They

remained in these places all summer

and bred there.

*Corvus corax*. - Occasional. Rather rare.

*Aphelocoma woodhousei*. - Very plentiful

everywhere except in the Verde bottom where

I have never seen any; but they appear

as soon as one reaches the oaks and

cedars of the foot-hills.

*Tyrannus verticalis*. - Numerous in

the Verde Valley. In families. Noisy.

*Tyrannus vociferans*. - Occasionally

seen in family groups, scattered everywhere.

*Myiarchus cinerascens*. - One seen

in the Verde Valley.

*Sayornis sayi*. - At Fort Verde.

*Sayornis nigricans*. - On Cherry Creek.

Always near water - streams.

*Chordeiles acutipennis texensis*. - Several.

*Parryptila saxatilis*. - A large flock

near the head of Copper Cañon.

*Trochilus alexandri*. - Very abundant.

*Selasphorus rufus*. - Abundant where

the yellow Caper is in bloom.

*Picus scalaris*. - Verde Valley.

(*Picus*?). - A woodpecker of medium size and with a note like *Picus pubescens* was seen in an oak-tree in Cherry Creek.

I think it was *Picus stricklandi*.

*Melanerpes formicivorus*. - Very abundant in the timber in Cherry Creek. They rove about in flocks of half dozens and in habits and sportive disposition resemble the Red-headed Woodpecker (*M. erythrocephalus*).

*Colaptes auratus mexicanus*. - Common in the wooded region of Cherry Creek.

*Falco sparverius*. - Several seen.

*Buteo borealis calurus*. - A fine adult seen in Cherry Creek.

*Buteo swainsoni*. - Common.

*Zenaidura macroura*. - Everywhere.

*Aquila chrysaetos*. - One seen in Copper Canon.

*Cathartes aura*. - Numerous.

*Lophortyx gambeli*. - Everywhere and all ages in flocks up to 50 individuals.

*Oryzopsis vociferus*. - Heard crying at Fort Verde during the night.

In all 46 species were noted during the day's ride.

September 2<sup>nd</sup>, 1884, Fort Verde, Arizona.

- ✓ 3279. *Spingoides macularius*. 2 juv. Shot on Beaver Creek. 190; 335; 103; 52; culmen, 23; gape, 35.5; tarsus, 34.5; middle toe and claw, 23; claw, 4; bare part of tibia, 10.

September 3<sup>rd</sup>, 1884, Fort Verde, Arizona.

- ✓ 3280. *Ceryle alcyon*. - ♂ ad. Bare part of tibia, 10. 345; 575; 1163; 103; cul. from base, 61; gape, 75; tarsus, 13; middle toe and claw, 23; claw, 9. Iris, hazel.
- Zamelodia melanocephala*. - One male seen on Beaver Creek.

September 4<sup>th</sup>, 1884, Fort Verde, Arizona.

- ✓ 3281. *Peroccephalus rubinus mexicanus*. 1 juv. 150 X 250. Passing through its 2<sup>nd</sup> moult. Fine red feathers in crown. Bill, brownish-black. Tarsi, feet and claws, black. When shot it was sitting, as they love to do, upon the branches of a prostrate cottonwood that had been washed from the shores of the Verde.

- ✓ 3282. *Lophortyx gambeli*. 1 juv. 130 X 335. Iris, bright hazel. Bill and claws, dusky. Crown, back and feet, pale reddish-brown.

- ✓ 3283. *Lophortyx gambeli* ♀ juv. 110 X 315. Colors the same as No. 3282, except that the bill is less dusky above and pinkish below.

- ~~3283~~ *Mus mus* Destroyed { Skull, ♂ ad. }  
~~3283~~ *Mus mus* { Skull, ♂. }  
~~3283~~ *Mus mus* { Skull, ♀. }  
 3284. *Peromyscus maniculatus* ♂ juv. 96; 107; 44; 27; cul., 18; gape, 22; tarsus, 5; mte., 7; cl. 3. Iris, hazel. Bill, tarsi, feet & claws, black.

- ~~3284~~ *Fiber castor fiber* ♂ juv. 123. Total length, 750; nose to eye, 49; ear, 99; occiput, 120; anus, 495; end of caudal hairs, 565; end of outstretched hind foot, 615; ear, height, 32 (to end of hairs, 37); breadth, 31; arm, 48; forearm from joint, 55; from elbow, 75; fore foot & cl., 57; claw, 16. Leg, 109; hind foot, 99; longest claw, 17; Tail, measured from hairs below, 198; from anus, 253; greatest breadth, 77; Upper incisor belt, length from gums, 14; width of each at apex, 5; width of both together at apex, 10; at base, 12.5; Length of lower incisor from gums, 20; width of each at apex, 5; of both together at apex, 10.5; at base, 13; Breadth of outstretched hind foot, 118; Claws of fore-foot, 1<sup>st</sup>, 16; 2<sup>nd</sup>, 13;



3rd 4th, 15; 5th 11. (Carp of  
 1st foot: 1st, 12.5; 2nd, 4; 3rd,  
 17.5; 4th, 13. Distance between outstretched  
 fore claws, 340. Stomach filled with bark  
 of the cottonwood tree. We had our cook  
 serve the hind quarters and loin of this  
 young Beaver roasted. Although we only  
 intended to taste it as an experiment, we  
 found it so deliciously tender, firm and sweet  
 that we dined off it, and ate the balance  
 cold for tea. It was entirely free from and  
 strong taste or odor and was certainly as  
 toothsome a piece of meat as I ever tasted,  
 and was so pronounced by all who ate it.

September 7th, 1884.  
 Fort Verde, Arizona.

Great Horned Owl. - One of these large  
 owls alighted in a little cottonwood tree in  
 front of my quarters late this evening. Lieut.  
 Vogdes came to the Captain's house, where  
 I was calling with Mrs. Menous & Gilliam,  
 and told me there was an Owl in front of  
 my quarters as large as a Turkey Buzzard. I  
 tried to see it, but failed, and frightened it so  
 that it flew, but alighted on another tree  
 close by, where I shot it dead with a light  
 charge of 38. It was late - long after taps - and the  
 guard called to the "Sgt. of the Guard" and they  
 all marched over to my quarters. I took  
 my bird gun to show to the ladies at Capt.  
 Russell's, and left Lieut. Vogdes to settle it with  
 them.

3285 Bubo virginianus subarcticus ♂ ad.  
 490; 1270; 1350; 315; cul. & cere, 40; cere, 21;  
 culmen, 24.5; gape, 45; tarsus, 69;  
 mte., 71; cl., 28; inner cl., 30; outer cl., 25; hind cl., 23.5;  
 diameter of eye, 24. height of ear tuft, 69. Irides bright  
 yellow. Cere, ~~pink~~ grayish. Bill, dusky plumbeous,

tipped with diomedes (both mandibles). Feet clothed  
 with hair-like feathers above, with a few terminal  
 scutellae above of a plumbeous color; feet, yellow, white  
 claws, bluish-black. Stomach empty.  
Hirundo erythrogastra. - A few seen to-day.  
Tachycineta thalassina. - Abundant.  
Mniotilta cinerea. - Still here.

September 8th, 1884. Fort Verde, Arizona.  
 This afternoon walked a mile or two up the  
 River, collecting birds. The following named spe-  
 cies were noticed.  
Oreoscoptes montanus. - A few seen.  
Mimus polyglottus. - Abundant.  
Geothlypis trichas. - Several noticed.  
Dendroica aestiva. - Abundant.  
Geothlypis macgillivrayi. - Several seen. A female  
 shot.  
Pyrranga ludoviciana. - One female.  
Hirundo erythrogastra. - A number seen.  
Tachycineta thalassina. - Vast numbers of these  
 swallows are now seen here every day.  
Petrochelidon lunifrons. - Quite a number seen.  
Phainopepla nitens. - Quite numerous.  
Vireo gilvus swainsoni. - One shot on the wing.  
Lanius ludovicianus excubitorides. - Common.  
Carpodacus frontalis. - Abundant.  
Astragalinus psaltria. - Singing,  
 and uttering an exceedingly sad call. They  
 delight to sit on dead birds in the nest.  
 the Verde River in small flocks. They  
 feed upon the wild sunflowers.  
Melospiza fasciata. - Common  
 along Beaver Creek & other suitable spots.  
Amphispiza bilineata. - Abundant.  
Spizella breweri. - Scarce.  
Passerina amoena. - One near the Verde.  
Pipilo fuscus mesoleucus. - In mesquites  
Pipilo faber. - Common.

*Nicolotinus ater*. - They seem to have nearly all departed, but a few flocks composed of young birds in gray plumage are still present.  
*Icterus cucullatus*. - Two were shot. The only ones seen. The female was mortally wounded and the young one refused to desert it, although very shy, and eluded me for a long time, by hiding in the young growth of cottonwoods near the wounded parent, but it always came to the spot from its hiding place if I withdrew and so was finally secured together with the old female.

They were exceedingly shy, but made their whereabouts known by a low, subdued rattling note in faint imitation of *Icterus baltimore*.  
*Corvus corax*. - A few pairs.

*Perisoreus canadensis*. - A large flock of gray birds with a peculiar guttural croak and a jay-like note have been seen at intervals since September 2<sup>nd</sup>. I suspected that they were *Perisoreus*, and yesterday my cook, Private Hilbo told me he saw a flock of "Camp Birds" flying past our house. He said he had seen the free birds so tame as to hop between himself & a companion, in camp in Colorado, and eat the crumbs they dropped when eating a meal. Today I saw a flock of from 50 to 100 individuals. Have only seen them on the wing.

*Tyrannus verticalis*. - Only a few seen.

*Sayornis nigricans*. - Fairly common beside streams.

*Contopus richardsoni*. - Several seen for the first time since spring.

*Pyrocephalus rubinus mexicanus*. - One seen.

*Euphonia trillii pusillus*. - One on Beaver Creek.

*Geothlypis alyxandri*. - Abundant.

*Salasphorus rufus*. - Abundant.

*Circus latirostris*. - A few seen.

*Panyptila saxatilis*. - Large numbers migrating.

*Ceryle alcyon*. - One on Beaver Creek.

*Accipiter cooperi*. - One fine adult male.

*Falco peregrinus*. - Young and old.

*Junco oreganus*. - A few seen.

*Pandion haliaetus*. - One or two seen.

*Cathartes aura*. - Numerous.

*Zenaidura macroura*. - Abundant.

*Lophortyx gambeli*. - Feeding on wild grapes.

*Podiceps montanus*. - One was shot on a mud island in the Verde River.

*Tringa minutilla*. - Two shot.

*Pelecanus alpestris*. - One shot.

*Tringoides macularius*. - Several seen.

*Agelaius vociferus*. - Numerous.

*Butorides virescens*. - One on Beaver Creek.

*Ardea herodias*. - One adult & several young.

*Rallus* (?) <sup>pozana carolinensis</sup>. - A rail-like bird was seen.

to make a short flight & drop in some water-grasses on the opposite side of Beaver Creek, where I was unable to cross.

3286. *Vireo gilvus swainsoni*. ♂ ad.  
 140: 217: 67: 57: cul., 7: gape 16: tars., 16: mte., 15: claw 5. Iris hazel, maxilla brownish black, mandible flesh color tipped with dusky - tarsi & feet plumbeous - claws dusky.

3287 *Podiceps montanus*. ♀ (ad?).  
 179: 380: 120: 57: cul., 11: gape 13: bare part of tibia 13.5: tars., 23: mte., 21: claw 7. Iris hazel bill black slightly orange on inner of mandible at base - tarsi, bare of tibia & feet dusky. greenish yellow, claws black.

3288 *Tringa alpina americana*. ♂ ad. (?)  
 184: 380: 122: 57: cul., 22: gape 23: bare part of tibia, 13.5: tars., 23: mte., 22: claw 5. Iris hazel, bill, legs, feet & claws black.

3289. *Tringa minutilla*. ♀ ad.  
 153: 292: 89: 44: cul., 19: gape 18.5: bare part of tibia 11: tars., 20: mte., 21: claw, 4.5. Iris hazel - bill black - legs & feet greenish brown - claws blackish.



3290. *Tringa maculosa*. ♀  
152: 284: 67: 47: cul., 18.5: gape 18: bare part  
of tibia 13: tars., 19: Mtc., 20: claw 4.5. Colors the  
same as no. 3289. This bird + the two preceding  
ones were feeding together + killed at one shot.
3291. *Geothlypis macgillivrayi*. ♀ ad.  
140: 186: 58: 59: most., 8: gape 14: tars., 21: Mtc., 17:  
claw 5. Iris hazel. bill brownish black - with narrow  
line of flesh color along gape - mandible flesh  
color dusky toward tip - tarsi + feet fleshy brown  
claws brown.
3292. *Pipilo fuscus mesoleucus*. ♂ juv.  
229: 304: 94: 115: cul., 16: gape 17: tars., 27:  
Mtc., 27: claw 8. Iris hazel.
- ✓ 3293. *Paryptila saxatilis*. ♀ ad.  
159: 342: 140: 64: cul., 6.5: gape 15: tars., 10:  
Mtc., 10.5: claw 6. Iris hazel - bill black - feet flesh  
color claws flesh color with dusky brownish markings.
- ✓ 3294. *Paryptila saxatilis*. ♀ ad. 10.5:  
161: 342: 142: 65: most., cul., 6.5: gape 16.5: tars., 10:  
Mtc., 11.5: claw 7. Colors same as no. 3293.
- ✓ 3295. *Icterus cucullatus*. ♀ ad.  
106: 270: 85: 92: cul., 20: gape 22: tars., 24:  
Mtc., 21: claw 6.5.
- ✓ 3296. *Icterus cucullatus*. ♂ juv.  
203: 270.
- ✓ 3297. *Tachycineta thalassina*. ♀ 137: 288.
- ✓ 3298. *Tachycineta thalassina*. ♀ ad. 136: 308. Moulting.

September 9<sup>th</sup>, 1884. Fort Verde, Arizona.

- ✓ 3299. *Syringoides macularius*. ♂ juv.  
195: 323: 98: 51: cul., 25: gape 28: bare part of  
tibia 11: tars., 23: Mtc., 22: claw 4.
3300. *Pyrauga carolina*. ♂ juv.  
221: 363: 110: 55: cul., 26: gape 23: bare part  
of tibia 13: tars., 34: Mtc., 44: claw 7. Iris olive  
brown. The same specimen noted as seen on page 193.
3301. *Melospiza fasciata*. ♂ juv. Not skinned.  
165: 222.

- 3301  
3302. *Contopus richardsoni*. ♀ juv.  
158: 260.
3303. *Sayornis nigricans*. ♀ ad.  
186: 282: 90: 83: most., 10.5: gape 21: tars., 16:  
Mtc., 15: claw 5.
3304. *Pyrauga ludoviciana*. ♂ juv. 188: 292. Not skinned.
3305. *Carpodacus difficilis*. ♀  
141: 202: 61: 57: most., 8: gape 17: tars., 17:  
Mtc., 13: claw 5. Iris hazel - maxilla brownish black  
mandible entirely flesh color. Tarsi, feet + claws  
black.
3306. *Geothlypis trichas*. Not skinned. ♀  
137: 178: 55: 55: cul., 8.5: gape 14: tars., 21.5:  
Mtc., 17: claw 4.5. Iris hazel.
3307. *Geothlypis trichas*. ♀  
133: 168.
3308. The following birds were seen: -  
*Oroscoptes montanus*. - One or two.  
*Mimus polyglottus*. Abundant.  
*Geothlypis trichas*. - Several seen.  
*Dendroica aestiva*. Abundant.  
*Hirundo erythrogastra*. - One or two seen.  
*Petrochelidon lunifrons*. - A few.  
*Tachycineta thalassina*. - Along numbers  
present, and seen everywhere.  
*Phainopepla nitens*. - One or two females.  
*Vireo pusillus*. - A few seen in the  
mesquite bushes.  
*Lanius ludovicianus excubitorides*. - One or two.  
*Carpodacus frontalis*.  
*Astragalinus psaltria*. - Feeding on sunflower  
seeds and perching in small flocks on  
dry cottonwoods in the River, frequently  
bathing in the Verde along the shore.  
*Melospiza fasciata*. - Feeds upon agave  
weeds which grow abundantly in  
sluggish places along Beaver Creek.  
*Amphispiza bilineata*. - Several seen.

*Pipilo aberti*. - Quite numerous <sup>everywhere in the Valley</sup>, but most abundant in the meadows.

*Cornuscorax*. - Common  
~~*Pyrocephalus cyanocephalus*~~ *Pyrocephalus cyanocephalus*. - One flock.

Their cry is cat-like and they also have a croaking note. J. V. G. saw several flocks to-day, between Prescott & Ft. Verde, and heard their cat-like cry in Copper Cañon.

*Tyrannus vociferans*. - One seen.

*Bayornis sayi*. - One or two about the Post.

*Bayornis nigricans*.

*Coturnix richardsoni*. - A few seen.

*Empidonax flaviventris*. - One.

*Trochilus alexandri*. - Numerous.

*Salasphorus rufus*. - Very abundant.

*Tache lateralis*. - A few females.

*Panophtila saxatilis*. - Very abundant.

*Zenaidura macroura*. - Plentiful.

*Lophortyx gambeli*. - Large flocks.

*Falco sparverius*. - Numerous.

*Falco peregrinus*. - One adult.

*Cathartes aura*.

*Pandion haliaetus carolinensis*. - One.

*Butorides virescens*. - One on Beaver Creek.

*Ardea herodias*. - Several.

*Ardea herodias*. - One seen on Beaver Creek.

It could scarcely be flushed from a tangle of roots and grass, and when it alighted across the stream could not afterwards be found.

*Porzana carolina*. - One shot where it was seen yesterday.

*Tringoides macularius*. - Several seen.

*Pelecanus alpinus americanus*. - One was seen on the Verde River. When on wing it utters a very curious sound very unlike that of any other shore birds with which I am acquainted. It was rather shy and could not be shot.

*Oxyechus vociferus*. - Only one seen.

Sept. 10<sup>th</sup>, 1884. Fort Verde, Arizona.

3304. *Tamias harrisi* (Aud. & Bach, Cien.). ♂ ad.

No. 125. Nose to eye, 16.5; ear, 36; occiput, 44; root of tail, 163; end of outstretched hind leg, 250; Tail from root to end of vertebrae, 86; 1. hair, 107; Ears, height <sup>snout</sup> 12; breadth, 11. Arm, 26; Fore-arm, 26; fore-foot, <sup>longest</sup> 24; leg, 35; hind-foot, 36; longest claw, 6.5. Distance between outstretched fore claws, 175.

total length 270. Hair very coarse and scanty in places showing areas of bare, black skin both above and below. They sit up perfectly erect on their hind feet like Prairie Dogs.

3305. *Melospiza fasciata fallax*. ♀ juv.

169; 223. ♂ ad. 7. 313; 322; 99; 148; occ., 38; root., 30; cap., 40; tarsus, 33; ule., 30; cl., 8. Irides, yellowish brown. Bill, black. Tarsi & feet, dusky, plumbeous. claws, blackish; soles of feet, grayish. flesh color. Singing when shot. This species has been singing a sweet song since September 1<sup>st</sup>. It feeds of wild grapes.

3307. *Lophortyx gambeli*. ♂ juv., 149 X 365.

3307. Long-eared Bat. *Antrozous pallidus*. ♀ ad. 124. Nose to eye, 9; ear, 16; occiput, 23; root of tail, 40. Tail from root, 43. Ears, height, 30; breadth, 22; height of tragus, 16. Arm, 28; fore-arm, 55; <sup>longest</sup> <sup>from carpal</sup> <sup>clavicle</sup> <sup>cl.</sup> 90; <sup>longest</sup> <sup>cl.</sup> 9.5; leg, 31; hind foot, 12; longest cl., 3.3. Expanse of wings, 360. Length of thigh, 21.

*Mimus polyglottus*. - Feeding upon wild grapes.

*Geothlypis trichas*. - Abundant where wild grapes grow. Singing.

*Geothlypis alpestris*. - A few seen.

*Dendroica aestiva*. - Very abundant.

*Geothlypis trichas*. - A few seen.

*Icteria virens*. - A few among the grape

vines on Beaver Creek.



*Pyrranga ludoviciana*. - A few seen.  
*Petrochelidon lunifrons*. - One or two seen. Of  
 the myriads of Violet Green Swallows (*I. thalassine*)  
 and White-throated Swifts (*Pomphila saxatilis*) seen  
 flying everywhere during the past few days, not  
 a single one of either could be seen to-day.  
*Phainopepla nitens*. - One or two seen.  
*Vireo pusillus*. - A few seen. Singing.  
*Tyrannus ludovicianus excubitorides*. - A few seen.  
*Carpodacus frontalis*. - Abundant. Singing.  
*Astragalinus psaltria*. - Numerous. Not  
 like the Killdeer's note is one call of this  
 bird that a soldier who accompanied me mistook  
 it for that of the Killdeer.  
*Melospiza fasciata*. - Only found beside water.  
*Amphispiza bilineata*. - Roosts under mesquite  
 bushes whence we flushed families of them  
 after nightfall.  
*Pipilo aberti*. - Everywhere abundant.  
*Icterus cucullatus*. - One seen.  
*Scolecophagus cyanocephalus*. - Have  
 just returned in small numbers to the  
 corals about Fort Verde.  
*Corvus corax*. - Common.  
~~(*Perisoreus*?)~~ *Cyanocephalus cyanocephalus*. - One flock.  
*Tyrannus sp.* - One.  
*Bayanus sayi*. - About the Post.  
*Bayanus nigricans*. - Common about water.  
*Contopus richardsoni*. - Quite numerous.  
*Trochilus alexandri*. - Abundant.  
*Selasphorus rufus*. - Abundant.  
*Ceryle alcyon*. - One on Beaver Creek.  
*Colaptes auratus mexicanus*. - One on Beaver Creek.  
*Falco sparverius*. - Common. One pursued a  
 shore lark for a good while but it was so  
 expert at turning & dodging that it finally managed  
 to elude the Hawk and escape.  
*Cathartes aura*. - Numerous.  
*Zenaidura macroura*. - Numerous.

*Lophortyx gambeli*. - In flocks of an  
 hundred or more.  
*Oxyechus vociferus*. - One pair only.  
*Tringoides macularius*. - A few seen.  
*Ardea herodias*. - Several seen.  
*Butorides virescens*. - One seen on Beaver Creek.

September 11<sup>th</sup>, 1884. Fort Verde, Arizona.  
 To-day is my 28<sup>th</sup> birthday! After tea,  
 Mrs. McNamee, little Pilean & Private Gilbo our  
 striker went down to the River with our  
 guns and rods. Ella shot the first bird,  
 an Abert's Towhee, and caught the first fish,  
 a "Verde Salmon". I shot four Beard's Sandpipers  
 & a Crissal-frosted Purple Finch; and Gilbo went  
 up the Verde after Beavers, and returned with  
 a Sparrow Hawk and a Dove. I shot a Dove  
 for bait and caught the "Verde Salmon" on it.  
 3307 *Verde Salmon*. ad.  
 Length to caudal, 280. Greatest depth of body, 75.  
 Head to opercle, 76. Eye, 11. Length of dorsal,  
 35; height, 43. Caudal, 55.  
 Fin-rays: D., 1, 9; P., 16 (about; much rounded posteriorly);  
 V., 9; A., 9. Lat. l. 95. (Made up in a skin.)  
 V3308\* *Pipilo aberti* ♀ juv. 234: 280.  
 V3309 *Carpodacus frontalis* ♀ juv. 155: 246.  
 V3310. *Linumulus sparverius* ♂. 270: 580: 187:  
 136: cul., + cere 15: cere 4: cul., 11.5: gape 17: tars.,  
 40: Mtc., 31: claw 10.  
 3311. *Tringa bairdi* ♀.  
 190: 398: 125: 55: cul., 24: gape 25: bare  
 part of tibia 15: tars., 23: Mtc., 21: claw, 5.  
 3312 *Tringa bairdi* ♂.  
 189: 395: 125: 58: cul., 23: gape, 25: bare  
 part of tibia, 13: tars., 23: Mtc., 22: claw 5.  
 3313. *Tringa bairdi* ♀.  
 193: 397: 124: 54: cul., 24.5: gape 26: bare  
 part of tibia, 15: tars., 23: Mtc., 22: claw 5.

3314. *Tringa bairdi* ♂  
 184; 388; 125; 54; cul., 22; gape 23.5; bare  
 part of tibia, 12; tars., 23; Mtc., 22; claw 5.  
 Iris hazel, bill, legs, feet and claws black.

3314. *Lepus sylvaticus nuttalli arizonae* major ♀ ad.  
 No. 126: nose to eye 29; nose to ear 60; nose to occiput 75;  
 nose to root of tail 350; ears-height, 86; width 45;  
 ears, 55; forearm 62; forefoot 45; longest claw 7.5;  
 leg 95; hind foot 89; longest claw 10; distance  
 between outstretched forefeet 340; nose to end  
 of outstretched hind foot 550; tail from root to  
 end of hairs 50; to end of vertebrae 45;

September 12<sup>th</sup>, 1884. Fort Verde, Arizona.

*Phalaenoptilus nuttalli*. - One Nuttall's Whet, a  
 poor-will was heard & one seen this evening.  
*Castor fiber*. - One young Beaver was seen  
 in the Verde. They buried with just the nose  
 and fore part of the head out of water. This  
 one climbed out upon the bank on the opposite  
 side of the River, where I shot at it unsuccessfully.

September 13<sup>th</sup>, 1884. Fort Verde, Arizona.

*Butorides virescens*. - Three were seen on Blavet  
 at one time. One was shot, but carried off  
 by some animal before it could be recovered.

*Tringoides macularius*. - Quite numerous.  
*Carpodacus frontalis*. - Feeds upon the grapes up  
 Beaver Creek, where there are hundreds of them.  
 The alight on the mesquite bushes at the side  
 of the Cañon in close flocks as dense as those  
 of Cedar Birds (*Amphispiza*) in the East.

*Gambel's Quail* (*Lophortyx gambeli*) is very abundant  
 in the region of the grapes in Beaver Creek Cañon  
 where we spent a part of the day gathering  
 grapes to make jelly. I easily secured  
 sixteen of them. Their crops distend with grapes & berries.  
*Ceryle alcyon*. - One on Beaver Creek.  
*Crotalus* !. - I shot a Rattlesnake

about six feet in length ( ) having  
 15 rattles - the "button". I was just about to shoot  
 some Gambel's Quails when a loud blowing and  
 his rattling apprised me of its presence, and  
 looking upon the ground at my feet in a  
 dense patch of yellow cypress I saw this huge  
 snake just in the act of striking at me. I  
 sprang to one side and escaped and as the  
 serpent coiled up again I moved around to  
 a position whence I could shoot its head off  
 without injuring the body. I then measured  
 its length and removed about 3/4 of the  
 skin with the rattles, not wishing to handle  
 the head extremely as my shot must have  
 ruptured the venom sac and spilled the poison  
 upon the adjacent parts. The flesh was white  
 and delicate looking. I brought it home  
 after carefully washing it in Beaver Creek,  
 and ~~was~~ I had it cooked and ate it for  
 breakfast next day, finding it very sweet  
 and good, and entirely free from any  
 strong or gamey odor or taste. In fact it  
 was about the same as frog's flesh in  
 both appearance and taste - a very toothsome  
 dish, fit for any table.

In the afternoon, I shot an other large  
 rattlesnake on Beaver Creek near the Verde,  
 and preserved the greater part of the  
 skin and the rattles: there were 11 rattles.  
*Oreoscoptes montanus*. - Feeding on grapes.  
*Phainopepla nitens*. - A number were seen  
 on Beaver, where they were feeding on wild grapes.  
*Colaptes auratus mexicanus*. - One seen  
 Beaver Creek. Hitherto they have been scarce  
 in the Valley, since <sup>early</sup> spring.  
*Tyrannus verticalis*. - Several seen.  
*Sayornis nigricans*. - Several on Beaver Creek.  
*Artagallus psaltria*. - Singing.  
*Sayornis saya*. - Singing a regular genuine song.



✓3315. *Carpodacus frontalis*. ♂ juv. Showing a trace of red on rump & breast. 155; 243; 75; 65; culm. 11; gape, 12; tars., 17; mte., 19; cl., 6. Iris, hazel. Bill dusky olive-brown above, fleshy brown below. Tarsi feet & claws, dusky brown.

✓3316. *Carpodacus frontalis*. ♀ juv. 150; 145; 76; 64; cul., 10.5; gape, 11.5; tars., 18; mte., 19.5; cl., 6. Colors of soft parts the same as No. 3315.

✓3317. *Tringoides macularius* ♀ juv. 200; 335; 105; 59; cul., 23; gape, 25; bare part of tibia, 13.5; tarsus, 23; mte., 23; cl., 4.

127. Sept. 14<sup>th</sup> 1884 Fort Verde, Arizona.

✓3318. Long-eared Bat. *Antrozous pallidus*. ♂ ad. Expanse of wings, 373. Nose to eye, 8.5; ear, 15; occiput, 23; root of tail, 59. Tail, length, 51. Ear, height, 30; breadth, 21. Leg, 24; hind-foot, 11; longest claw, 3.5. Wing from carpal joint, 97; alar to cl., 11; claw, 4.

*Accipiter cooperi*. - Two alighted on the fence surrounding the parade-ground.

*Cyanoccephalus* ~~*pygmaeus*~~ *pygmaeus*. - One small flock seen.

*Sayornis sayi*. - Singing both in the air and when sitting. It has a peculiarly clear mellow disyllabic whistle, followed by a low trill, uttered pensively when sitting still on a perch waiting for something to turn up.

*Oxyechus vociferus*. - Its notes constantly heard as they fly about it having rained all night.

*Amphispiza bilineata*. - They roost every night in a cottonwood tree in our yard & sing at intervals during the night. Others roost under mesquite bushes upon the ground in the rear of the quarters.

*Geothlypis trichas*. - One old male.

*Totanus* ? - A small flock seen.

*Oxyechus vociferus*. - One seen. No. 127 scarce.

*Tringoides macularius*. - Several seen.

✓3318. *Ceryle alcyon*. ♀ ad. 362; 570; 162; 105; cul., 58; gape 70.5; tars., 12; mte., 23; claw 4. Bare part of tibia anterior, 4.

✓3319. *Pyrranga ludoviciana* ♀ 187; 288; 10; 75; cul., 16.5; tars., 11; gape, 19; tars., 20; mte., 20; claw 6.

3319a. *Lepus callosus texianus*. ♂ juv. Young of the year. No. 128. Nose to eye, 52; ear, 85; occiput, 102; root of tail, 47.5; end of outstretched hind-leg, 77.5; tail, from root to end of scapula, 87; hairs, 125; Ears, height, 17.5; breadth, 8.5. Hind foot, 40; cl., 10. Arm, 114. Leg, 145; hind-foot 124; cl., 13. Distance between outstretched fore claws, 57.2.

~~3320~~

Sept. 15<sup>th</sup> 1884 Fort Verde, Arizona.

3320. *Falco peregrinus nervosus*. ♂ juv. 405; 945; 305; 170; cul. & cere, 26; cere, 9; culmen, 18.5; gape, 26; tarsus, 48; mte., 59; cl., 17.5. Iris, hazel. Legs, pale bluish-green. Bill, greenish blue at base, shading into blue-black at tip. Tarsi, feet, pale lemon yellow; claws, black.

3321. *Accipiter cooperi* ♀ juv. ~~Caught by feeding in doves and Original Mushers.~~

485; 850; 263; 345; cul. & cere, 26; cere, 13; cul., 17; gape, 29. Tarsus, 70; mte., 59; cl., 16. Iris, straw-color. Cere, greenish-yellow. Bill, bluish, dusky at tip. Tarsi, feet, common yellow. Claws, black. Stomach contained Gambel's quail.

✓3322. *Linumulus sparverius*. ♀ juv. 280; 610; 203; 142; cul. & cere, 16; cere, 4.5; cul., 12; gape, 19; tarsus, 36; mte., 32; cl., 10. Iris, hazel. Cere, lemon-yellow. Bill, pale blue at base, shading into blue black towards extremity. Tarsi & feet, orange-yellow; claws, black. Stomach filled with crickets.

✓3323. *Linumulus sparverius*. ♂ ad. 267; 575; 192; 132; cere & cul., 15.5; cere, 4; cul., 11.5; tarsus, 37; mte., 32; cl., 10. Iris, hazel. Bare space around eye, cere & skin at base of bill, bright orange-yellow. Tarsi

feet, orange-yellow; claws, black. Bill, pale blue at base of maxilla, yellowish-white at base of mandible, shading to blue-black at extremity. This is a fine adult bird, freshly moulted, the moult not quite completed. Young birds (of which I have three freshly killed specimens before me, ~~232-233~~ 233 at 18) may be readily distinguished by the color of the skin about the face (around eyes, base of bill & the cere), these parts being clear lemon-yellow in young of the year and orange-yellow in adults. The tarsi & feet are considerably paler orange-yellow in the young, and the bill is usually very much paler, the blue-black being restricted to the terminal portion of the upper mandible in most cases. The plumage is paler; the reddish-brown color of the breast being replaced by a soiled white uniform with the throat, abdomen & under tail-coverts. The spotting of breast is <sup>rather</sup> indistinct, the spots being obscured by the long silky tips of the over-lapping feathers. The ~~lower~~ wing-coverts (especially the least) are faintly bordered with rusty. The specimens here described are, I believe, in the first autumnal plumage - not in 1st plumage. They were in families, accompanied by the parents.

3324. *Limnunculus sparverius* ♂ juv.  
265; 365; 188; 134; cul. & cere, (broken); cere, 4; culmen, (broken); gape, 18; tarsus, 35; ule, 32; id., 9.5.  
See above description of soft parts (under No. 3323).

3325. *Limnunculus sparverius* ♂ juv.  
275; 593; 200; 138; cul. & cere, 15.5; cere, 5; culmen, 11; gape, 19; tarsus, 37; ule, 32; id., 9.  
See under No. 3323 for description of soft parts.

3326. *Dendroica aestiva* ♂ ad. 135; 202.

3327. *Contopus richardsoni* ♂ ad. 154; 248.

3328. *Spizella breweri* ♂ ad. 146; 204.

*Pipilo chlorurus*. - First seen since Spring.

*Ammodramus cyaniceps*. - One was shot and another one seen. A large flock seen.

Sept. 16<sup>th</sup> 1884. Fort Verde, Arizona.

3329. *Acridothera cooperi* ♂ juv.  
475; 750; 230; 207; cul. & cere, 23; cere, 10.5; cal., 15; gape, 24; tars., 61; ule, 49; id., 13.  
Iris yellow. Cere & base skin at base of bill, yellowish-grey. Bill, pale blue at base, shading into blue-black towards extremity. Tarsi and feet greenish-yellow; claws, black. <sup>Stomach</sup> empty.

*Aphelocoma woodhousei*. - A number were seen about the Henry Clay Mine.

*Picus scalaris*. - Not as numerous for a few weeks past as hitherto, but during the last few days one or two have been noted every day.

*Colaptes auratus mexicanus*. - A few are now seen every day, but still scarce.

*Salpinctes obsoletus*. - One seen near the Henry Clay Mining Company's camp.

*Cathartes aura*. - A large flock hangs out around the butcher-shop, and sit and sun themselves in the cottonwood trees along the Verde with their wings akimbo.

*Corvus corax*. - Also stay about the shambles.

Sept. 17<sup>th</sup> 1884. Fort Verde, A.S.  
*Ardea herodias*. - Quite a number were seen along the River.

*Butorides virescens*. - Several seen down the Verde a mile or less from the Post.

*Tyrannus vociferans*. - Quite a number were seen. They move about in families.

Gilbo shot two accidentally when firing at a Red-tail Hawk (*Buteo calurus*).

*Geothlypis trichas*. - Several seen.

*Icteria virens longicauda*. - One seen.

*Hirundo horreorum*. - A large number seen.

*Tachycineta thalassina*. - Numerous.

*Myiurus polyglottus*.

*Tyrannus ludovicianus*. - Feeding on grapes.

*Ceryle alca*. - One seen.



Sept. 18<sup>th</sup>, 1884 Fort Verde, Arizona.

- 3330 *Ardea herodias*. ♀ juv.  
length to end of toes, 1385; length, 1641;  
stretch, 1660; wing, 450; tail 167; cul., 119;  
gape, 153; bare part of tibia 90; tars., 165;  
note, 117; claw 14.

~~XXXXXX~~ ~~XXXXXX~~

~~XXXXXX~~  
*Heirudo*. *Pythogaster*. - Numerous to-day.  
*Sayornis sayi*. - Several about the fort.  
*Astragalinus psaltria*. - This species in very  
plentiful and in full song in some  
extensive beds of wild sunflowers adjoining  
the garden.

*Genædura carolinensis*. - A nest containing  
young only a few days old was found  
in a mesquite bush in the Verde bottom.

Sept. 19<sup>th</sup>, 1884. Fort Verde, Arizona.

- 3330a. *Tamias harrisi* (Aud. & Bach.) Allen. ♂ ad.  
No. 129. Nose to eye, 18; ear, 36; occiput, 46; root of tail,  
147; end of outstretched hind leg, 228. Tail, from  
root to end of vertebrae, 170; hairs, 93. Ears, height,  
13; breadth, 13. Arm, 52; fore-arm, 25;  
fore-foot, 23; its longest claw, 6.5. Leg, 40;  
hind-foot, 25; its longest claw, 6.5.

- 3330 *Tamias harrisi* (Aud. & Bach.) Allen. ♀ juv.  
No. 130. Nose to occiput, 43; root of tail, 144. Tail from  
root to end of vertebrae, 70; hairs, 95.

- 3330 *Mus musculus*. Not skinned. juv.  
Nose to occiput, 21; root of tail, 68; Tail, 70.

3331. *Geothlypis trichas*. ♀ ad.  
140; 180; 56; 56; most, 8; gape, 14.5;  
tarsus, 20.5; nte., 18; cl., 5. Iris, hazel. Bill

3332. *Contopus richardsoni*. ♂ juv. 167; 270.

- 3333 *Oxyechus vociferus*. ♀.  
260; 300; 156; 107; cul., 20; gape, 23;  
tarsus, 55; nte., 26.5; cl., 6; bare part  
of tibia, 19.

3334. *Timonius* *spurius*. ♂ juv.  
277; 370; 195; 138; cul. + cere, 15; cere, 4.5;  
culmen, 12; gape, 17.5; tars., 37; nte., 32; cl., 6.5.

Sept. 20<sup>th</sup>, 1884 Fort Verde, Arizona.

3335. *Circus hudsonius*. ♀ juv. Stomach contained small birds.  
540; 1210; 382; 2; 131; cere, 14; cul., 18.5;  
gape, 35; tarsus, 86; nte., 55; cl., 19. Iris, hazel.  
Iris, greenish-yellow, bill, blue at base, shading  
into blue-black. Tarsi & feet, lemon-yellow. Claw, black.

- 3335a. *Yellow-striped Snake*. ♂ ad. This specimen was  
captured alive but severely injured, on August  
24<sup>th</sup>, 1884, and has been kept in a nearly tight  
wooden box without food ever since. When taken  
out to-day and killed it was lively & apparently  
had not suffered much from confinement and  
lack of any food. There are 25 rows of scales,  
and 19 ventral plates. Preserved in a skin.

- 3335b. *Dipodomys deserti* (Mearns) "Kangaroo Rat." ♀ juv.  
No. 131. On September 4<sup>th</sup> I caught this fellow alive, it  
being quite young. It uttered a loud and singu-  
-lar cry, which attracted my attention and excited  
my curiosity; after looking about for the thing  
for some time, I at length discovered it sitting  
doubled up in a heap at my feet, right in front  
of a burrow in which it doubtless lived. I placed  
my ample foot, encased in a foot boot upon the  
hole and soon secured this miniature Kangaroo  
and shut it up in a tin bait box. I have kept  
it in confinement ever since; and it seemed  
to thrive well upon a diet consisting exclusively  
of fat pork and Indian meal. During the  
day it slept most of the time, lying flat  
upon its side like a Jack Rabbit, and springing  
to its feet with agility whenever any person  
looked into its box. At night its constant  
amusement was leaping up and bumping  
its head upon the glass of its prison, and  
in this was so persistent that its crown

denuded of hair & made sore by the contact. At my wife's request I ended this existence to-day, and had much difficulty in removing the pork grease from its pretty pelt, before placing the specimen in my cabinet. The enormous head of this little creature, reminded me of a case of chronic hydrocephalus.

Sept. 20<sup>th</sup> 1884. Fort Verde, Arizona.

3335-C. *Mus musculus* ♂ ad. Immature?

No. 132. Nose to occiput, 24; root of tail, 80. Tail, 92. Lint. Mans, Mr. Headfield & myself took our rifles & rode up on the mesa in search of Deer. On the mesa, were a few Plain Titmice (*Lophophanes inornatus*), Black-throated Sparrows (*Amphispiza bilineata*), Blandings Finch (*Psaltriparus chlorurus*), Gambel's Quail (*Lophortyx gambeli*), *Spizella breweri*, Cooper's Hawk (*Accipiter cooperi*), Sharp-shinned Hawk (*Accipiter fuscus*), Turkey Buzzard (*Cathartes aura*), Crissal Thrasher (*Geothlypis trichas*), and Great Horned Owl (*Bubo virginianus*).

Riding up the mountain, on the east bank of the Verde River, we saw a Road Runner (*Geococcyx californianus*) running up the big hill. It ran up the white limestone road with incredible speed, and, although we aimed at them, no one ventured a shot as it did not stop, but skinned up the hill to the very top, then ran down the cliff, and, as we came up, soared off from the top of a high, vertical cliff, then flapped vigorously and alighted perhaps 500 yards from the place it started from. Lint. Mans saw two others yesterday, down the valley.

Mr. Mans Headfield saw one doe in the bed of Beaver Creek; but I was in a different direction & saw no Deer.

3336. *Geococcyx alcyon* ♂ ad. 337; 515; 156; 102; culmen, 58; gape, 71; tarsus, 12; mte., 24; cl., 9; bare part of tibia anteriorly, 12. Iris, hazel. Bill, blue-black maxilla horn-color (or bluish horn-color), at base laterally and mandible the same color at base. Extreme tip of both mandibles, horn-color. Bare part of tibia brownish flesh-color, shading darker to toes & claws which, are black, the inner expanded process of middle toe claw, horn-color. Tarsi purplish-brown; feet, purple below dusky purplish brown at base, becoming black about the middle. An old male with perfectly pure "blue" bill (the feathers of course, slightly edged with white) etc. *Geococcyx alcyon* - One sitting in a cottonwood, *Geococcyx alcyon*.

Sept. 22<sup>nd</sup>, 1884. Fort Verde, Arizona. 3337. *Lophortyx gambeli*. ♂ ad. Autumnal moult completed. This is the first of the many dozens lately examined in complete new plumage. 290; 377; 112; 102; cul., 11.5; nost., 8; gape, 14.5; tarsus, 34; mte., 39; cl., 9.5. Iris, hazel. Bill, black. Tarsi & feet, brownish-plumbeous; claws, dusky. Crop filled with wheat (cutivated), seed of *Oxycarpus*, ants, buds & purple flowers, and a quantity of minute seeds. *Geococcyx alcyon* (Linn.) Linn. (Anthraxite Hawks) *Geococcyx alcyon* - One of the Harris's Buzzards, was seen sitting upon the ground on the bank of the Verde, apparently unoccupied with any particular pursuit. A shot was fired at it, when it flew away.

Sept. 23<sup>rd</sup>, 1884. Fort Verde, Arizona. 3338. *Geococcyx alcyon* ♂ ad. 298; 470; 149; 112; cul., 34; gape, 38; tars., 40; mte., 34.5; cl., 10. Iris, hazel. Bill, tarsi and feet, black. *Geococcyx alcyon* 3339. *Geococcyx alcyon* ♀ ad. 284; 455; 140; 113; cul., 35; gape 37; tarsus, 38; mte., 28.5; cl., 8.5. Colors as above.



✓ 3340. *Picus stricklandi* ♀ ad.

182; 332; 104; 72; culm., 20.5; gape, 23; tars., 18.5; mte., 20; cl., 8.5. Irides, red. Bill, plumbeous-black. Tarsi + feet, plumbeous; claws, black.

3341. *Butorides virescens*. ♀ ad. Length to end of claws, 610; end of tail, 487; 743; 200; 75; cul., 61; gape, 80; tarsus, 54; mte., 59; claw, 10; bare part of tibia, 20. Irides yellow. Bill with maxilla blackish; yellow along sides; mandible, yellow; blackish at base and tip along sides. Bare skin about eye and head, bright greenish-yellow. Bare part of tibia, tarsi + feet yellow, <sup>observed to be</sup> marked with dusky anteriorly, claws, dusky. Shot on the wing. Flew afterwards a long way & then hid in the brush along shore. It was excessively fat.

3342. *Accipiter cooperi* ♀ juv.

485; 850; 262; 240; cere + cul., 27; cere, 12; cul., 18; gape, 27; tarsus, 66; mte., 60; cl., 17. Irides, yellow. <sup>stomach contents</sup> Shot while after some birds near a house.

✓ 3343. *Ceryle alcyon*. ♀ ad.

347; 543; 175; 107; cul., 59; gape 74; tars., 14; mte., 25; claw 9; bare part of tibia 11.

✓ 3344. *Ceryle alcyon*.

337; ~~560~~ 560; 162; 103; cul., 60; gape 75; bare part of tibia, 9; <sup>162</sup> tars., 12; mte., 25; claw, 10.

✓ 3345. *Ceryle alcyon*. ♂

340; 565; 162; 103; cul., 59; gape, 72; bare part of tibia 10; tars., 11.5; mte., 23.5; claw, 9.

✓ 3346. *Ceryle alcyon*

336; 579; 166; 102; cul., 56; gape, 72; bare part of tibia, 11; tarsus, 13; mte., 25; cl., 9.

✓ 3347. *Colaptes auratus mexicanus* ♂ ad.

330; 535; 170; 126; cul., 38.5; gape, 42; tarsus, 27.5; mte., 32; cl., 11. Irides, reddish-brown. Bill & claws, neutral tint; tarsi +

stomach filled with grapes.

3348. *Querquedula carolinensis* ♂. Sex not noted.

386; 625; 190; 82; cul., 38; gape, 45; tars., 33; mte., 43; cl., 8. Irides, yellowish-brown. Bill, olive-brown, paler + fleshy below, shading into black terminally, above. Tarsi + feet plumbeous-gray, with joints, webs + claws, dusky. Peculiar spec. of feather, dress by <sup>under</sup> surface spotted. Perhaps 2 juv.

Sept. 24<sup>th</sup>, 1884. Fort Verde, A.T.

To-day was spent at a picnic on Beaver Creek. While fishing, a splashing sound was heard among some bushes and dead branches in the side of the stream a few feet from me. I went to the spot, and a Reddish Egret flew across the creek and alighted. It then flew down stream + alighted within a few feet of the place where I was then fishing, and stood on one leg looking at me with its little neck constantly in motion for a long time. In the course of an hour I procured a gun and shot it a few rods up stream from where I had left it. It was running about in the shallow water striking at small fishes with its beak, and was very gentle. It is the first one I ever saw.

3349. *Ardea herodias*. ♀. Reddish Egret.

Length to end of claws, 880; length, 640; 930; 250; 85; cul., 95; gape, 110; maxilla 6.5 longer than mandible; bare part of tibia, 71; tarsus, 96; mte., 75; cl., 11. Irides, straw-color. Bill, with mandible, maxilla laterally at base + a narrow line extending two-thirds to the point, yellow; residue <sup>maxilla</sup> yellowish-brown at base, becoming black towards tip, which (extreme tip) which is horn-color. Bare part of tibia, tarsi + feet, bluish-gray; becoming dusky <sup>anteriorly</sup> on tarsi below knees; and extending thence to dorsal extremity of toes. Claws, <sup>pale</sup> fleshy-brown. Bare skin about face, bright yellow. Under surface of wings, except <sup>inner</sup> feathers, entirely pure-white.

✓3350. *Fringoides macularius*. ♂ juv.  
length to end of claws, 220; length, 188;  
323: 99: 52: cul., 24: gape 27: bare part  
of tibia 13: tars., 25: Mtc., 23: claw 4.  
*Drothypis trichas*. - Several seen.

Sept. 25<sup>th</sup>, 1884. Fort Verde, A.T.

To-day I was obliged to kill my two pet  
Hawks, as I am ordered to accompany  
Genl. Crook on the trip to San Carlos,  
and during my absence they could  
not be supplied with food.

3351. *Buteo calurus*. ♀ juv. Young of the year.  
575: 1350: 415: 265: cul., + cere, 37: cul., 26.5:  
cere, 16: gape 45: tars., 87: Mtc., 67: claw 25.  
Iris light hazel - cere pale yellowish green. Bill  
pale blue at base shading terminally into  
blue black at on both mandibles - tars. +  
feet greenish yellow - claws blue black.

3352. *Buteo calurus*. ♂, im.  
553: 1285: 335: 255: cul., + cere, 36: cul., 25:  
cere, 15: gape 43: tars., 88: Mtc., 67: claw 23.

*Sturnella estilliana* (Cotton-tail).  
*Spizella chrysolaus*. - None numerous, and  
uttering no note yet. The Catbirds of M. carolinensis.

✓3353. *Ceryle vociferus*. ♀ ad.  
267: 515: 161: 111: cul., 20: gape, 23: 5:  
tarsus, 38: Mtc., 28: cul., 6.5: bare part of tibia 11.  
The middle tail-feathers are clean-cut + free from  
the soft elongated tips which young birds  
(exclusively??) possess. Iris, hazel; eyelid  
bright red. Bill + claws, black. Bare part  
of tibia, tars. + feet, fleshy; tinged with plumbeous.

Sept. 26<sup>th</sup>, 1884. Fort Verde, Arizona.  
Leaving. Learned that I am invited by  
Genl. Crook to accompany him on his tour  
of inspection, to be absent about 30 days,  
I take this opportunity, before leaving the  
Verde, to write up a few notes on the  
fall migration etc.:

1. *Melospiza migratoria propinqua*. - Not seen since early spring.
2. *Oroscoptes montanus*. - Common where the  
wild grape grows. It feeds on grapes.
3. *Geothlypis trichas*. - Still present.
4. *Sialia mexicana*. - None have yet appeared  
in the Verde Valley. On Sept. 18 I saw a  
number on Cherry Creek, within ten miles  
of this place. They possibly may breed there.  
They were in the pairs.
5. *Sialia arctica*. - None have yet arrived.
6. *Regulus calendula*. - None have yet been seen.
7. *Troglodytes aedon*. - A few seen, Sept. 21<sup>st</sup>.  
hunting Deer on the mesa east of the Verde.  
They were, as usual, in the cañons.
8. *Psaltriparus caeruleus*. - Not seen recently.
9. *Auriparus flaviceps*. - Not seen recently.
10. *Sitta pygmaea*. - Seen on Cherry Creek, Sept. 1<sup>st</sup>.
11. *Sitta carolinensis*. - Not seen recently since.
12. *Salpinctes obsoletus*. - A number were heard  
Sept. 20<sup>th</sup> in the cañons east of us. Have  
not visited their haunts since then.
13. *Geothlypis mexicana conspersa*. - Not  
seen recently; but this is probably because I  
have neglected their abodes in the rocky  
cañons and cliffs.
14. *Cremophila alpestris*. - First  
observed on Sept. 20<sup>th</sup>; but they have doubtless  
been present & abundant since. Lately, my  
walks have been chiefly beside the  
Verde River, and the upland birds  
have not been much observed of late.



15. *Helminthophaga luciae*. - Not seen recently.
16. *Helminthophaga virginiae*. - Only seen at the Grand Cañon of the Colorado, where one was shot.
17. *Helminthophaga celata lutescens*. - Not seen since spring.
18. *Dendroica aestiva*. - Not seen since Sept. 22<sup>nd</sup>. They have rapidly decreased in numbers since the second week in September, when the species was exceedingly plentiful.
19. *Dendroica nigrescens*. - Not seen since spring.
20. *Dendroica auduboni*. - Not seen since spring.
21. *Geothlypis trichas*. - Still present in some numbers in the vicinity of water.
22. *Geothlypis macgillivrayi*. - One or two seen nearly every day up to date, since the first one was shot, this autumn, on Sept. 8<sup>th</sup>.
23. *Icteria virens longicauda*. - One or two were seen to-day (Sept. 26<sup>th</sup>). It has not been observed for a week or two past; but this is perhaps owing to its excessive shyness at this season, whereas, in summer it is often very bold. It is also nearly silent now, and found in thickly tangled grape-vines, upon the fruit of which it probably feeds, as do so many other birds at this season.
24. *Myiodytes pusillus pilcolatus*. - Not noticed at all since spring.
25. *Pyrranga ludoviciana*. - Still present and feeding upon wild grapes in some numbers.
26. *Reinhardt erythrogastra horreorum*. - A good many were seen to-day; and the species is seen every day about the cornals.
27. *Tachycineta thalassina*. - A few were seen to-day; but none had been seen for the past few days. They will doubtless all be gone in a few days, if, indeed, any more are seen.
28. *Oetrochelidon lunifrons*. - Not seen for some days past. Last noted on September 10<sup>th</sup>.
29. *Stelgidopteryx serripennis*. - Not seen since August.

30. *Progne subis*. - Not seen since spring at Whipple.
31. *Antipellis cedronum*. - The first and only one was seen to-day, beside the Verde River. Its well-known note was heard, and, on looking up, I saw a single bird flying close over my head. I could see the yellow band across its tail, and its flight and note were unmistakable.
32. *Phainopepla nitens*. - This bird was plentiful during the first week or ten days in September. They were feeding in numbers upon grapes on Indian Creek. It was last seen on Sept. 13<sup>th</sup>. I have visited the locality a number of times ~~lately~~ since the 13<sup>th</sup>, and have failed to see any, and conclude that the species must have departed forthwith.
33. *Vireo gilvus swainsoni*. - The one shot on the 8<sup>th</sup> of September is the only one I ever saw.
34. *Vireo solitarius*. - Has not been seen since spring.
35. *Vireo vicinior*. - Not seen recently.
36. *Vireo pusillus*. - Last seen Sept. 10<sup>th</sup>. Last heard singing the same date.
37. *Lanius ludovicianus excubitorides*. - Still present. Frequently heard singing of late.
38. *Geothlypis arizonae*. - Not seen lately. Have never seen but one, and that in Copper Cañon some months ago.
39. *Corpodacus frontalis*. - Large numbers are seen everywhere. Frequently singing during the past fortnight.
40. *Astragalinus psaltria*. - This bird is found in large flocks wherever the large wild sunflowers grow, and especially beside the Verde River. They usually choose to alight upon dead trees or branches, and they sing pleasantly at this season.
41. *Passerculus*. - One was shot at Ash Fork, Ariz. on March 17<sup>th</sup>, 1884. The species was seen at Verde last spring, beside the Verde River. This autumn I have seen

- but one specimen (No. ) seen.
42. *Coccyzus grammurus confinis*. - This species has just begun to arrive. The first were seen on Sept. 22<sup>nd</sup>.
43. *Melospiza fasciata*. - Still present in numbers, but only in the immediate margin of streams. Not heard singing very lately.
44. *Pseudacra*. - Not seen lately.
45. *Amphispiza bilineata*. - Not seen for a day or two past. Its numbers have greatly decreased within just two weeks. Last noted September 21<sup>st</sup>, when a few were seen on the high mesa east of us.
46. *Junco*. - None seen since Spring in the Verde Valley; but, on Sept. 1<sup>st</sup>, I thought I heard a Junco on Cherry Creek, about ten miles west amongst the pines.
47. *Spizella domesticus arizonae*. - Not positively identified as seen here lately; but without doubt numbers of the *Spizellas* seen in flocks about the rancher's gardens belong to this species, but I neglected to shoot and positively identify more than one or two specimens. They happened to be the following species:
48. *Spizella breweri*. - Present in great numbers, unless most of those seen are really *S. arizonae*.
49. *Spizella atricularis*. - Not seen very recently.
50. *Zonotrichia*. - The first arrived here on Sept. 22<sup>nd</sup>, and they are now numerous.
51. *Chondestes grammacus*. - None have been noticed for several weeks past.
52. *Calamospiza bicolor*. - Having paid little attention to birds of this family of late & not having made a point of visiting the special localities which they affect, I have doubtless allowed some important notes on migration to escape. I have only

- seen this species once since Spring. On Sept 1<sup>st</sup>, I fired into a flock in the Valley, and got two.
53. *Spiza americana*. - I saw what I thought to be a young bird of this species on Mr. Brown's ranch on the 22<sup>nd</sup> of September. Aside from this I have only seen this species collected (No. 3132) on August 5<sup>th</sup>, shot in a dense growth of tall sunflowers.
54. *Zamelodia melanocephala*. - Not seen for a week or two past.
55. *Spizaca cornuta*. - It has been seen weeks since this the first was last seen.
56. *Passerina amoena*. - Not seen for some time past.
57. *Pipilo maculatus megalonyx*. - Last seen on the 21<sup>st</sup> of September. It does not frequent the River bottom, and, hence, may still be abundant in the hills, which I have not visited since the above date.
58. *Pipilo fuscus mesoleucos*. - A very few have been seen of late in the River bottom and one (No. ) was shot in the rear of my quarters.
59. *Pipilo aberti*. - Still very common in the Verde bottom. On note like the Robin.
60. *Pipilo chlorurus*. - Rather scarce, but seen every day, in all situations since Sept. 15<sup>th</sup>, on which date I shot the first specimen. <sup>It uttered a note resembling a call of a magnum's Jay.</sup>
61. *Melospiza alba obscura*. - This species was seen in good-sized flocks about the corals up to the first week in Sept., since which none have been seen. The young associated by themselves, separate.
62. *Agelaius*. - Not seen since Sept.
63. *Sceloporus cyanocephalus*. - Small flocks arrived about the corals, and have since been rapidly increasing in size.
64. *Xanthocephalus heterocephalus*. - They all left this region late last Spring.



- During the summer a single bird (young or female) alighted in our yard. No others have yet been seen.
65. *Sturnella neglecta*. - This species bred sparingly in this immediate neighborhood, and more plentifully in certain suitable localities within a few miles. They have not yet dispersed over the Valley, and have not been seen in the vicinity of the Post this autumn; but were very plentiful here last spring.
66. *Icterus bullocki*. - All departed early in September.
67. *Icterus cucullatus*. - Not seen since September 8<sup>th</sup>, when two were shot.
68. *Icterus parisorum*. - Not seen very lately - last several weeks ago.
69. *Corvus corax*. - Seen every day.
70. *Myiarchus cinerascens*. - Appeared in large, noisy flocks early in September and have been seen nearly every day since in large flocks on wing.
71. *Cyanocitta stelleri maculosa*. - Not seen since my last trip from Whipple several months ago.
72. *Aphelocoma woodhousei*. - Common & resident throughout the year in the hills surrounding us, but never descending to the river bottom.
73. *Tyrannus verticalis*. - None have been seen since Sept. 15<sup>th</sup>.
74. *Tyrannus vociferans*. - None seen since Sept. 17<sup>th</sup>.
75. *Myiarchus*. - Last seen Sept. 19<sup>th</sup>.
76. *Sayornis sayi*. - Still common
77. *Sayornis nigricans*. - do.
- Contopus richardsoni*. - do.

- 78, 79, & 80. *Euphonia* sp. - Several species of *Euphonia* are still present; but *E. pusillus*, our common summer resident has not been seen for a week or two past.
81. *Pyrocephalus rubinus mexicanus*. - Still present in small numbers.
82. *Chordeiles acutirostris texensis*. - A single one was the last seen on the night of Sept 22<sup>nd</sup>.
83. *Phalaenoptilus nuttallii*. - One seen and heard Sept 12<sup>th</sup> was the only one seen since early summer.
84. *Troglodytes alexandri*. - Last seen Sept 21<sup>st</sup>.
85. *Telasphorus rufus*. - Last seen Sept 13<sup>th</sup>.
86. *Ceryle alcyon*. - First seen this autumn in Sept. and still as numerous as in the East.
87. *Pamphila saxatilis*. - Not seen since to Sept. when last noted in my journal. The species was first seen on Sept 1<sup>st</sup> on the way from the top of Copper Canyon to Hudson on Ash Creek. A few days later they became exceedingly plentiful in the Verde Valley, flying with the Violet-green Swallows.
88. *Geococcyx californianus*. - Occasionally seen.
89. *Geococcyx americanus*. - Not seen recently.
90. *Picus villosus harrisi*. - Only seen at Whipple.
91. *Picus scalaris*. - Seen nearly every day.
92. *Sphyrapicus varius nuchalis*. - At Ash Fork, March 17<sup>th</sup>, 1884, I found a few on the cedars. None have since been seen until to-day when one was seen near the Verde River.
93. *Melanerpes formicivorus*. - One seen to-day in the Cottonwoods beside the Verde River.
94. *Colaptes auratus mexicanus*. - Has become plentiful & generally dispersed in the Valley.

95. *Aluco plumbeus frontalis*. - Not seen, but occasionally heard, since I found the nest & secured a young bird on (No. 1).

96. *Bubo virginianus*. - (One seen to-day, and, indeed, it has become rather common. Sometimes seen in pairs, sometimes single. Often heard at night.

97. *Scops triehoris*. - Well seen & heard here since the specimen was shot in a cave on Beaver Creek, early in the summer. The species is said to be common & persistent.

98. *Glaucocheilus cynerea*. - I have only seen one at Whipple last March; but a rancher here in the Valley tells me he has seen & shot specimens on Clear Creek about six miles from the Post.

99. *Speotyto curicularia hypogaea*. - One small colony about four miles up the Valley, and others ten or fifteen miles up. Have not visited them for some time past.

100. *Circus cyaneus hudsonius*. - Marsh Hawks were seen early last spring; but none were observed during the summer. The first one seen this autumn (No. 3258) was shot August 27<sup>th</sup>. The species probably breeds near here.

101. *Accipiter fuscus*. - This species was seen occasionally throughout the summer. The fall migration began early in September, and the species has been abundant since August. They frequent especially the thickest growth of cottonwoods beside the streams, capturing their prey along the borders, sailing low over the water and under the branches of the trees, rising abruptly to alight amongst the thickest foliage, where they are perceived only with difficulty. They will sit off the

shadows, unmoved, while you are looking for them where they were seen to alight. Descending and soaring swiftly away among the tree-trunks, between the branches.

102. *Accipiter cooperi*. - Has been plentiful since August 22<sup>nd</sup>, when the first specimen was taken since last spring. I do not remember to have noticed any during summer; but have no doubt but the species breeds plentifully in this region. They are very destructive to poultry. Even the young of the year will attack and worry old hens and nearly grown Turkeys, "herding" them in to the yard from the fields one at a time, as a rancher expressed it to me. He had killed a dozen or more in the act. He also shot a Marsh Hawk (*Circus hudsonius*) driving his chickens and Turkeys in to the house. I myself saw a Marsh Hawk dashing at some hens apparently amusing himself by frightening by continually swooping down at them.

103. *Falco mexicanus*. - A number of these birds in very light plumage, were seen about the Post when I first arrived in last March. One was shot in the rear of the landress's quarters, and I saw it and pulled out the rectrices and primaries, it being too old for skinning. None have been seen since last spring.

104. *Falco peregrinus*. - These birds were seen during the summer, and a young male and female were preserved. They are seen nearly every time I go up Beaver Creek or up the Verde, and breed on Beaver Creek, without doubt.



105. Falco sparverius. - Very abundant. Families remain together when all alighting on one tree. The species is an abundant summer resident.
106. Buteo borealis calurus. - Quite common. On Sept. 5 numbers were seen perched upon the tall pines in Cherry Creek.
107. Buteo abbreviatus. - Only seen at rare intervals. Last spring it was seen more frequently, and one specimen (no. ) preserved.
108. Buteo swainsoni. - The most abundant Buteo. Seen nearly every day. It is a summer resident, and breeds.
109. Urubitinga anthracina. - A few sport the summer here; but not recognizing this rare species, never before actually recorded as taken in North America north of Mexico, I made no special effort to secure a specimen. The bird was always seen singly, usually perching in the thickest foliage of a willow or cottonwood close beside the Verde River or the Sonora, and not observed until it flew, when it always escaped by darting behind the foliage of a willow or cottonwood, and, although several times fired at, it never fell to these snaf-shots until today (Sept. 26<sup>th</sup>, 1884), when I secured a magnificent adult female that was very fat, and a fierce and powerful Hawk. Although hard hit, it tried to keep on flying, but soon fell into the water. It made a vigorous effort and reached the shore, and then ran swiftly, half leaping and half flying. When I tried to catch up with it, it repeatedly dashed into the stream and crossed to the opposite side, but was finally overtaken, when it fought desperately and was marvellously active and plucky. A few days ago, when hunting especially for this bird, I saw it flying and have never seen a Hawk

- fly move easily and powerfully. When flushed from their perch their flight is exceedingly swift, especially considering its breadth of wing & shortness of primaries.
110. Pandion haliaetus. - This is a summer resident and breeds, but not plentiful except during the spring migration. One was seen to-day.
111. Aquila chrysaetos. - A few were seen last spring, mostly during April. Not seen recently.
112. Cathartes aura. - An abundant permanent resident; breeds. Roosts in the cottonwoods near the slaughter house beside the Verde.
113. Columba fasciata. - A few summered twenty miles up the Verde. They breed in Cherry Creek a dozen miles from here. Genl. Crook shot one in April sixty miles east of Verde. Have never seen it myself.
114. Melospiza leucoptera. - The single bird seen by me near the Post last spring is the only one; and the settlers do not seem to know the bird at all; so I presume it to be rare.
115. Meleagris gallinaria. - Plentiful in the mountains east of Verde, within say fifteen or twenty miles. Having never had an opportunity of visiting the region, I have never yet seen the Mexican Wild Turkey.
116. Lophortyx gambeli. - Exceedingly abundant.
117. Cyrtonyx massena. - Quite a colony resides at the Point of Rocks four miles from Prescott. I saw several there and shot one but failed to recover it. They are said to be in some numbers about the top of the range of hills bordering this Valley. I have never been where they occur in this vicinity.

Canis macrotis. - When I went to Arizona, I did not know <sup>the</sup> deer-track from a semicolon; but I soon learned to track a wounded deer for miles by a few scattered drops of blood and an occasional niprint of its hoofs.

- Sept. 26<sup>th</sup> - (Continued) - Ft. Verde, Ariz.
3354. Urubitinga anthracina (Licht.) Lape. ♀ ad.  
Autumnal moult almost completed. Irides, hazel.  
Bill, pale yellow at base shading through light plumbeous to blue black terminally. Bare skin along gape, between eye and bill and cere pure bright yellow. Tarsi and feet, yellow; claws, blue-black. <sup>at gape</sup> 28; cul, 40; cere, 16; cul, 28; gape 42; tibia, 117; tars, 88; hte., 66; claw 24; hind claw, 27; inner claw, 25; outer claw 18.5. <sup>Stomach</sup> contained frog.
3355. Gallinago wilsoni (Senn.) Bonap. ♂ ad.  
Irides, dark hazel. Bill, brownish-black, with an olive tinge. In lower mandible, below for one-half of its length. Tarsi & feet greenish; claws, blackish. - Length to end of claws 340; 285; 443; 133; 67; cul, 67; gape 64.5; bare part of tibia, 11.5; tars, 33; hte., 41; claw 8. Tail feathers, 16.
3356. Gallinula galeata (Licht.) Bp. ♀ ad.  
Iris hazel - bill olive at base - a band of dark red anterior to nostrils on maxilla sides greenish yellow - mandible, olive at base shading to greenish yellow at tip. Tibial & circled below feathers by a band of bright orange red - this band restricted internally; externally, 14 mm. in extent - tarsi, residue of tibia & feet, bright sap green. Inferior surface of feet grayish - claws neutral tint. Length to end of claws, 310; cul, 375; 605; 190; 88; bill from front of feathers, 40; from nostril, 15; gape, 29; tibia, 28; tars, 56; hte., 81; claw 15.5.
3357. Cathartes aura. ♂ juv.  
635; 1630; 487; 263 (approximate measurement of the culmen to the rectrix extending 12 mm. further; cere, 31; cere + cul, 56; cul, 24; gape 50; tars, 63; hte., 83; claw 21. Irides, hazel.



Barb. skin of head & bill, dusky plumbeous. Occiput & nape covered with a strong growth of down of a whitish color laterally; fuliginous ~~color~~ behind. Tarsi & feet whitish. Claws, blackish, as are a row of scutellae on the dorsum of each of toe. Exceedingly fat and offensive. Its crop was packed full of fresh wheat; amongst its contents was an entire head of the common Round Squirrel of this region (*Tamias harrisi*), the skin and skull of the head, were both intact, and appeared to be perfectly fresh. I should not be astonished to learn that Buzzards sometimes capture these little animals alive & devour them.

✓3358. *Colaptes auratus mexicanus*. ♂ This specimen has well marked occipital red band.  
335: 545: 176: 127: cul., 39: gape 44: tars., 31: mte., 33: claw, 12.

✓3359. *Colaptes auratus mexicanus*. ♀ ad.  
350: 558: 179: 140: cul., 40: gape, 43: tars., 32: mte., 33.5: claw 11.5.

Sept. 27<sup>th</sup>, 1884. Ft. Verde, Arizona.  
*Cyanocitta* <sup>*cyanocephalus*</sup> ~~*cyanocephalus*~~ <sup>*cyanocephalus*</sup> ~~*cyanocephalus*~~ - Large flocks are flying about, very seldom alighting, always in full cry. A few alighted upon the grain stacks at the corral.

*Hirundo erythrogastra horreorum*. - Numerous about the corals.

Sept. 28<sup>th</sup>, 1884. Ft. Verde, Arizona.  
*Lanius ludovicianus excubitorides*  
*Jayornis Sayi*. - About the Post.

*Stellicopteryx cyanocephalus*. - Large flock.

*Cyanocitta* <sup>*cyanocephalus*</sup> ~~*cyanocephalus*~~ <sup>*cyanocephalus*</sup> ~~*cyanocephalus*~~ *arizonae*. - Large flock's flying over the Post. Their cries can be heard at great distance; often heard some minutes before the flocks are discernible in the distance.

*Corvus corax*. - A few were seen every

day. They are rather shy, and never alight on the post except about the butcher shop, in the grassy corals.  
*Cathartes aura*. - Soaring about every where. Especially numerous about the slaughter house & corals, a mile down the Valley near the River, where a number of very large cottonwood afford convenient resting places. At night all of the *Bufo* <sup>*variegatus*</sup> ~~*variegatus*~~ in the vicinity congregate and roost in large numbers in the cottonwoods, retiring early - just at dusk. They are not shy and can be shot at any time with ease; but, as yet, I have killed but four, all of which were skinned.  
*Querquedula carolinensis*. - This Duck is becoming quite numerous. Gilbo shot some to-day, and saw a good many.

✓3360. *Oxyechus vociferus* ♀ ad. No caudal prolongation.  
263: 522: 173: 110: cul., 19: gape 28: tars. part of tibia, 19: tars., 32: mte., 26: claw, 6.

Note. - (On October 1<sup>st</sup>, 1884, I started out with Genl. Crook on the trip to San Carlos, via Fort Apache and back to Fort Verde. The notes of the trip, from Oct. 1<sup>st</sup> to 27<sup>th</sup>, inclusive, are written up elsewhere.)

*Thryomanes* (*Amphispiza*) *decipiens* (Linn.) means.  
3360<sup>c</sup> *Kangaroo Rat* <sup>*Onychomys*</sup> ~~*Thryomanes*~~ <sup>*Thryomanes*</sup> ~~*Thryomanes*~~ *leucogaster* <sup>*leucogaster*</sup> ~~*leucogaster*~~ <sup>*leucogaster*</sup> ~~*leucogaster*~~ *leucogaster* (Linn.) means.  
No. 154. Total length, 176. Head & Body, 124. Nose to eye, 18. ear, 26; meatus, 30. Tip of ear, 44. <sup>137</sup> <sup>35</sup> Tail to end of vertebrae, 51. hairs, 53. Forearm, 18. Forefoot, 13. el, 3.5. Leg, 24. hind-foot, 20. <sup>49</sup> <sup>12</sup> Height of ear from crown, 16. meatus, 18. Between eyes, 11. Chest girth, 90. Nose to end of stretched hind leg, 168. Between claws across shoulders, 109. Arizona Mole-Mouse.

To-day, we are out up to see Montezuma's Well, twelve miles from Fort Verde, on Beaver Creek. The well is a circular depression, perhaps 100 feet deep with nearly vertical walls, in which are numerous caves and excavations made by the Aztec races, and walled up in front. Some of them appear to be large, natural caverns, with divisions into apartments by means of walls. At the bottom of the depression is a large, deep pool of water which empties into Beaver Creek by a subterranean channel, constituting quite an important tributary to Beaver Creek.

The water is cold, and is in reality an immense spring. <sup>(Kinostemon santonense (Conte))</sup> turtles are numerous in it and it is surrounded by a belt of Cat-tails, tules, and grasses or sedge averaging about ten feet. In this, the Marsh Wren (*Helminthophila palustris paludicola*) were numerous and singing. There is as much difference between the song of this bird and the Eastern variety as between the songs of the Eastern and Western Song Sparrows; but one would at once recognize it as a Song-billed Marsh Wren from its song.

In this singular place were found several other species of birds, as follows: -

*Lophortyx gambeli*. - A flock of a dozen, two of which were shot. The rest flew up the perpendicular wall to the top of the well, where Capt. Riddet shot some more of them.

*Melospiza melodia*. - Several in the border of the pool.

*Catherpes mexicanus conspersus*. - Several were singing in the rocky wall of the well.

*Regulus calendula*. - One.

The birds seen to-day were: -

1. *Regulus calendula*
2. *Catherpes conspersus*

3. *Lanius ludovicianus excubitorides*. - Several.
4. *Corvus corax*. - Several.
5. *Ustragalinus psaltria*. - The specimen shot could not be seen on the nest, more than a fortnight, showing that this species breeds late in the season, or irregularly like the *Ustragalinus* birds of the Eastern United States.
6. *Lonotrichus leucophrys*. - Abundant; singing.
7. *Junco hiemalis arcticus*. - Common on Beaver Creek.
8. *Pipilo aberti*. - Abundant.
9. *Pipilo maculatus megalonyx*. - One on Beaver Creek.
10. *Melospiza fasciata*. - On Beaver Creek.
11. *Eremophila alpestris*. - In flocks.
12. *Scolecophagus cyanocephalus*. - At the foot.
13. *Sturnella neglecta*. - Common.
14. *Corvus corax*.
15. *Picus scalaris*.
16. *Colaptes auratus mexicanus*. - Common.
17. *Sayornis sayi*. - Several seen.
18. *Ammodramus sparverius*.
19. *Accipiter fuscus*. - One on Beaver Creek. It was extremely cold and audacious.
20. *Buteo borealis calurus*. - Common.
21. *Lophortyx gambeli*.
22. *Zenaidura macroura*. - Now quite scarce in the Verde Valley. About 20 seen on Beaver Creek.
23. *Ardea herodias*. - Seen on Beaver Creek and Verde River.

✓ 3471. *Helminthophila palustris paludicola* ♂ ad.  
140; 179; 54; 55; nost., 11; gape, 18.5; tars., 21.5; mte., 17.5; cl., 5. Irides, hazel. Bill, with maxilla brownish-black, lined just appreciably with flesh-color along gape; mandible flesh-color, at base, tipped and narrowly lined laterally with brownish-black. Tarsi and feet, dark brown; claws, brownish-black.

✓ 3472. *Helminthophila palustris paludicola* ♂ ad.  
139; 175; 55; 56; nost., 10; gape, 18; tars., 21;



- note, 14; cl., 5. Colors as above.
13473. *Amelospiza palustris paludicola* ♀ ad. Montezuma Well.  
137; 183; 55; 56; nost., 10; gape, 18; tars., 20.5  
note, 18.5; cl., 5. Colors as above.
13474. *Astragalinus psaltria* ♂ juv. 109; 192. Verde.
13475. *Sayornis sayi* ♂ ad. Montezuma Well.  
107; 333; 107; 88; nost., 12; gape, 18; tars., 21.5; note, 18; cl., 6. Irides, hazel.  
Inside of mouth, yellow. Bill, tarsi feet & claws, black.
13476. *Melospiza fasciata montana* Hensh. ♂ ad.  
178; 232; 71; 82; cul., 1.3; gape, 13.5;  
tars., 24; note, 22; cl., 6. Montezuma Well.

Oct. 30<sup>th</sup>. Fort Verde, A. T.

*Sayornis sayi*. - About the hospital. Utters a low, sweetly modulated whistle.

*Salpinctes obsoletus*. - One was seen carefully examining the roof and chimneys in a roof piazza, moving slowly about, careless of our observation.

*Lophortyx gambeli*. - A number were running about the quarters and parade, and calling in a sad, wailing manner to each other. Lieut. Morgan killed one by carelessly shying a stone towards it.

Oct. 31<sup>st</sup>. Fort Verde, A. T.

*Accipiter fuscus*. - Flying over the parade while inspection was going on.

*Picus scalaris*. - In cottonwoods in the post.

*Geothlypis cyanocephalus*.

*Sturnella neglecta*.

*Corvus corax*.

*Salpinctes obsoletus*. - About the quarters.

Jan. 1<sup>st</sup>, 1851. Ft. Verde, A. T.  
This afternoon walked a couple of miles up the Verde River and thence across to Beaver Creek and down Beaver to the Post. The birds seen were:

1. *Oreoscoptes montanus*.
2. *Harporhynchus crissalis*.
3. *Regulus calendula*.
4. *Salpinctes obsoletus*. - One about the quarters.
5. *Dendroica auduboni*.
6. *Tamias ludovicianus eximiorides*.
7. *Carpodacus frontalis*.
8. *Astragalinus psaltria*.
9. *Zonotrichia leucophrys*.
10. *Melospiza fasciata*.
11. *Pipilo aberti*. - Abundant.
12. *Pipilo chlorurus*. - One on the bank of Verde River.
13. *Geothlypis cyanocephalus*.
14. *Sturnella neglecta*.
15. *Corvus corax*.
16. *Sayornis sayi*.
17. *Sayornis nigricans*. - Two were seen on Beaver Creek.
18. *Ceryle alcyon*. - One on Beaver Creek.
19. *Picus scalaris*. - Numerous.
20. *Colaptes auratus mexicanus*. - Common.
21. *Falco peregrinus*. - One seen.
22. *Spinunculus parvulus*. - One or two seen.
23. *Accipiter cooperi*. - A fine adult female.
24. *Accipiter fuscus*.
25. *Buteo borealis calurus*.
26. *Zenaidura macroura*. - Several seen.
27. *Lophortyx gambeli*.
28. *Oxyechus vociferus*. - One on Beaver Creek.
29. *Urocyon v. herodias*. - Several seen on Beaver Creek and on the Verde River.
30. *Marmota flaviventris*. - One shot from a small flag.
31. *Tallus callosus texianus*. - One shot.
32. *Lepus sylvaticus* <sup>arizonae major</sup> ~~multicinctus~~. - One shot.
33. *Spermophilus grammurus*.
34. *Tallus callosus*. - One shot on Beaver Creek.

3477. *Tamias europaeus* juv.  
 Golden, hazel. Bill, dusky olivaceous. Bare  
 part of tibiae, tarsi and feet, olive-green;  
 claws dusky-luminous. Shot on Beaver Creek,  
 in a little branch, running beneath overhanging  
 grape-vines. In to end of crown, 5.75;  
 ear, 3.6; nape, 3.3; wing from front of plate, 3.2;  
 bare tibia, 3.5; tarsus, 5.5; mte., 8.0; cl., 11.  
 3.65; 5.90; 1.75; 7.3.

### November 26<sup>th</sup>, 1884.

From November 4<sup>th</sup>, to date, I have been on a  
 trip to the Arasupai Village on Cataract Creek,  
 near the Grand Cañon of the Colorado. Arrived  
 at Verde to-day before noon with a number  
 of specimens to skin.

- No. 150. *Tamias harrisi* (Aud. & Bach.) Allen. ♂ ad. Nov. 17<sup>th</sup>.  
 12 m. E. of Peach Springs Station. Nov. 17<sup>th</sup>.  
 ear, 1.35; occiput, 1.75; root of tail, 6.45; end of  
 outstretched hind-leg, 9.50; end of hairs of tail, 9.70;  
 Between eyes, .81; No. arm, 1.05; fore foot & cl., .90  
 cl., 2.5. Leg, 1.50; hind-foot, 1.60; cl., 2.0.  
 Ears, height above skull, .35; meatus, .44; width, .47.  
 Tail from root to end of vertebrae, 2.10; hairs, 3.25;  
 Between claws across shoulders, 6.60. Girth, 3.25

- No. 151. *Tamias harrisi* (Aud. & Bach.) Allen. ♂ ad. Nov. 17<sup>th</sup>.  
 12 miles east of Peach Springs Station. Nov. 17<sup>th</sup>.  
 ear, 1.25; occiput, 1.63; root of tail, 6.10; end of  
 outstretched hind-leg, 9.10; end of hairs of tail, 9.75;  
 Between eyes, .75; No. arm, 1.00; fore foot & cl., .90;  
 cl., .24. Leg, 1.50; hind-foot & cl., 1.48; cl., 2.0.  
 Ears, height above skull, .33; meatus, .41; width, .50.  
 Tail, from root to end of vertebrae, 2.60; hairs, 3.65;  
 Between claws across shoulders, 6.10. Girth, 3.30

- No. 152. *Tamias harrisi* (Aud. & Bach.) Allen. ♂ ad. Nov. 17<sup>th</sup>.  
 12 miles east of Peach Springs Station. Nov. 17<sup>th</sup>.  
 ear, 1.38; occiput, 1.72; root of tail, 6.20; end of  
 outstretched hind-leg, 9.50. Total length, 9.85;  
 Between eyes, .74. No. arm, 1.00; fore foot & cl., .90

- cl., 1.5. Leg, 1.48; hind-foot & cl., 1.49; cl., 2.1.  
 Ears, height above skull, .31; meatus, .40; width, .49.  
 Tail from root to end of vertebrae, 2.75; hairs, 3.65.  
 Between claws across shoulders, 6.60. Chest girth, 3.25.  
 3572. *Oroscoptes montanus* ♂ ad. Near camp in the cañon  
 10 miles northeast of Peach Springs Station. Nov. 19<sup>th</sup>.  
 2.26; 3.18; 1.00; .99; .12; .24; .33;  
 .24; .65. Sides, hazel.  
 3562. *Agredismus torquatus* ♀ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 3.75; 5.24; 1.71; 1.05; cul., 2.8; gape, 3.4; tarsus,  
 2.5; mte., 2.8; cl., 9.  
 3563. *Agredismus longicaudus* ♂ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 3.00; 5.60; 1.76; 1.10; cul., 3.1; gape, 3.8; tarsus,  
 3.0; mte., 3.2; cl., 10.  
 3564. *Agredismus longicaudus* ♀ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 2.83; 5.37; 1.72; 1.08; cul., 2.9; gape, 3.4;  
 tarsus, 2.9; mte., 3.1; cl., 11.  
 3565. *Agredismus longicaudus* ♀ ad. Pine Creek. Nov. 18<sup>th</sup>.  
 2.78; 5.38; 1.72; 1.07; cul., 2.8; gape, 3.4;  
 tarsus, 2.7; mte., 3.0; cl., 10.  
 3568. *Geothlypis borealis calurus* ad. Nov. 17<sup>th</sup>, 1884.  
 Grand Cañon of the Colorado opposite Pine Springs.  
 5.20; 12.40; 3.30; 2.20; cul., 1.8; cl., 1.5;  
 gape, 1.5; wing, 4.4; tarsus, 6; mte., 6.0; cl., 2.2.  
 3619. *Chrysomitris tenuis* ♂ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 1.31; 2.28; .74; .53; cul., 1.1; gape 1.1; mte., 1.6;  
 tarsus, 1.6; claw .6; ~~tail .1~~  
 3566. *Lanius excubitorides* ♂ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 1.61; 2.72; .93; .68; .12.5; gape 1.3;  
 tarsus, 2.0; mte., 1.8; cl., 6.  
 3567. *Carduelis cassinii* ♂ ad. Pine Springs. Nov. 17<sup>th</sup>.  
 1.70; 2.77; .95; .68; cul., 1.3; gape 1.4; tarsus, 2.0;  
 mte., 2.0; cl., 6.  
 3583. *Geothlypis borealis calurus* ♂ ad. Granite Mountain. Nov. 24<sup>th</sup>.  
 2.85; 4.70; 1.45; 1.11; cul., 3.4; gape, 3.8; tarsus, 4.0;  
 mte., 3.2; cl., 9.  
 3588. *Sialia arctica*. Chino Station on R.R. Nov. 21<sup>st</sup>.  
 1.92; 3.60; 1.19; .84; root, 1.0; gape 2.1; tarsus, 2.5;  
 mte., 2.2.5; cul. 6.5. Nov. 21<sup>st</sup>.



33579. *Sialia arctica*. ♀ ad. <sup>adulter, adult, fed by daughter</sup> <sup>Chino Valley, Nov. 22.</sup> 183; 338; 113; 74; cul., 9.5; gape 21; tars., 22; mte., 20.5; cl., 6.5. Nov. 21.
33580. *Erasmophila alpestris* <sup>adulter, adult, fed by daughter</sup> <sup>Chino Valley, Nov. 22.</sup> ♂ ad. 175; 321; 102; 75; cul., 11.5; tars., 8.5; gape, 15; tars., 22; mte., 17; claw, 6.5.
33584. *Symnecitta cyanocapilla* ♀ ad. Granite. 274; 460; 142; 107; cul., 32; gape, 34.5; tars., 39; mte., 28; cl., 9.
33585. *Symnecitta cyanocapilla* ♀ ad. Granite. 285; 460; 146; 113; cul., 34; gape, 38; tarsus, 38; mte., 30; cl., 10.
33586. *Symnecitta cyanocapilla* ♀ ad. Granite. 277; 452; 112; cul., 33; gape, 37; tarsus, 38; mte., 29; cl., 9.
33575. *Sialia arctica* ♂ ad. Peace Spring, Station, Nov. 19. 142; 355; 119; 78; nostril, 10; gape, 22; tarsus, 24; mte., 22; cl., 7.
33587. *Sitta carolinensis aculeata* ♂ ad. 5 miles east of Whipple Barracks, A. S. Nov. 25<sup>th</sup>. 150; 265; 91; 55; culmen, 20; gape, 24; tarsus, 19; mte., 21; cl., 6.5.
33596. *Lophophanes inornatus* ad. 5 miles east of Whipple Barracks, A. S. Nov. 25<sup>th</sup>. 145; 220; 71; 64; cul., 12; nostril, 10; gape, 14; tars., 20; mte., 16; cl., 5.5.
33588. *Psaltiriparus plumbeus*. ♀ ad. Whipple Barracks. Nov. 25<sup>th</sup>. Sides, back yellow. Bill, tarsus, feet and claws, black. 117; 156; 51; 60; cul., 8; gape, 9; tarsus, 17; mte., 12; cl., 4.
33589. *Psaltiriparus plumbeus* ♀ ad. Whipple Barracks, A. S. Nov. 25<sup>th</sup>. Sides, brown. Other parts colored as the last. 113; 154; 51; 61; cul., 7; gape, 8; tarsus, 17; mte., 12; claw, 4.
33590. *Psaltiriparus plumbeus* ♀ ad. do do do do. 111; 155; 51; 60; cul., 8; gape, 9; tarsus, 18; mte., 12; cl., 4.
33598. *Turdus migratorius* ♂ ad. Nov. 25<sup>th</sup> Agua Fria. 260; 420; 130; 93; culmen, 25; gape, 37; tarsus, 39; mte., 38; cl., 19.

3599. *Pipilo fuscus mesoleucus* <sup>the 2. rarer. (Whipple)</sup> 127; 308; 95; 114; cul., 16; gape, 17; tarsus, 16; mte., 26; cl., 7.5. Nov. 25<sup>th</sup>.
3587. *Zonotrichia intermedia* <sup>the 2. rarer. (Whipple)</sup> ♀ ad. Whipple Barracks, A. S. Nov. 25<sup>th</sup>. 335; 312; 98; 107; cul., 16; gape, 25; tarsus, 28; mte., 23; cl., 7.5.
33600. *Barinophila cressida* ♀ ad. 7 miles east of Whipple Barracks, A. S. Nov. 25<sup>th</sup>, 1884.
- ~~*Buteo borealis* ♂ ad. Whipple Barracks, A. S. Nov. 25<sup>th</sup>, 1884.~~
- \* 355. 320; 98; 148; cul., 38; tars., 32; mte., 33; cl., 8.
3594. *Picus villosus naccisi* ♀ ad. 7 miles east of Whipple Barracks, A. S. Nov. 25<sup>th</sup>, 1884. 226; 385; 120; 89; cul., 28.5; gape, 29; tars., 19; mte., 25; cl., 9.
33595. *Pipilo maculatus megalonyx*. ♂ ad. Nov. 25<sup>th</sup>, 1884. 7 miles East of Whipple Barracks, A. S. 216; 285; 89; 108; cul., 15; gape, 15.5; tars., 27; mte., 26; cl., 8; hind claw, 11.
3591. *Zonotrichia intermedia*. ♀ juv. Whipple Barracks, A. S. Nov. 25<sup>th</sup>, 1884. 168; 239; 76; 78; cul., 11.5; gape 12; tars., 22; mte., 21; cl., 6.
3592. *Aphelocoma floridana woodhousei* ♀ ad. Nov. 25<sup>th</sup>. 292; 393; 125; 143; cul., 27; gape, 31; tars., 39; mte., 29; cl., 9. Whipple Bks, A. S.
- ~~3593. *Geococcyx californianus* ♂ ad. Cotton Canon, near Fort Verde, A. S. November 26<sup>th</sup>, 1884. 600; 540; 182; 305; cul., 55; gape, 64; nostril, 37; tarsus, 64; mte., 45; cl., 13. Do. of bill over centre of nostril, 14.5; width at base of bill, 33. Strongly filled with grass hoppers & grasshoppers.~~
3593. *Buteo borealis calurus* ♀ juv. Cotton Canon of the Colorado opposite Pine Springs, A. S. 580; 1300; 420; 265; cul. + cere 35; cere, 16; cul., 23; gape 43; tars., 89; mte., 69; claw 24; hind claw 31. Nov. 25<sup>th</sup>, Prescott, A. S.

/ v. 28<sup>th</sup>, 1884.

To-day rode forty-three miles to see two children that were taken up with giant rounder caps. I rode in the ambulance to Hudson's on Ash Creek, finished my work and returned to Fort Verde in the mail buckboard, by way of Cherry Creek, arriving here about seven o'clock yesterday. Of 2 I took no gun, no specimens were secured.

The following species were seen:

Mammals. - Lepus arizonae lexianus, Lepus sylvaticus (arizonae?), Meriones estor Merriam. Thomomys rat, and a badger, but the latter was shot near Cherry Creek settlement. Two Deer were killed, last week in Copper Canyon.

Birds. - 1. Thruia migratoria holochrysa. - A large flock seen in Copper Canyon.

2. Oreoscoptes montanus. - Scarce.

3. Geothlypis trichas. - Common in the way, except in the timber.

4. Sialia arctica. - Scarce.

5. Spinus calandris. - Common.

6. Lophophanes inornatus. - A few.

7. Psittiparus plumbeus.

8. Sitta carolinensis aculeata. - One in wet timber and also seen in the lines of Cherry Creek.

9. Salpinctes obsoletus. - A few in the timber and in Copper Canyon & Cherry Creek and among the rocks.

10. Eremophila alpestris. - Between the Canyon and Hudson.

11. Lanius ludovicianus excubitorides. - Several seen.

12. Corpodacus frontalis. - Common.

13. Amphispiza belli meridensis. - Scarce.

14. Junco annectens. - Abundant.

15. Spizella breweri. - A number seen in Copper C.

16. Zonotrichia intermedia. - Abundant, and all that I could see distinctly were intermedia.

17. Pipilo maculatus megalonyx. - Abundant.

18. Pipilo fuscus mesoleucus. - Scarce.

19. Sceloporus cyanocephalus. - At the Post.



(Nov. 28<sup>th</sup>, 1884.)

1. *Sturnella neglecta*. - Common.
2. *Coccyz corax*.
3. *Aplocheilichthys floridana woodhousei*. - In  
abundance in the way down in the valley.
4. *Cyanocitta stelleri macrolopha*. - Common  
in the pine, oak and juniper forest of Cherry Cr.
5. *Psaltriparus forficatus*. - Abundant in the pines.
6. *Agelaius phoeniceus*. - A large flock  
was found in the pines at Cherry Creek.
7. *Colaptes mexicanus*. - Abundant.
8. *Geothlypis trichas*.
9. *Junco oreganus*. - An adult sat on  
a rock within a couple of rods of the buckboard  
& was with difficulty made to fly. Abundant.
10. *Buteo swainsoni*. - One sat directly over the  
road in the settlement on Cherry Creek and did  
not fly till we were within 20 feet of the branch.  
He then flew a couple of rods and lit on a rock.
11. *Salpinctes obsoletus*. - A flock was seen near  
the foot of Cooper Canyon, scattered over considerable  
ground, which must have contained upwards of 100.
12. *Geococcyx californianus*. - The buckboard driver  
saw one 2 miles west of Hudson's ranch on the creek.

Nov. 29<sup>th</sup>, 1884.

Skinned birds nearly all day. Towards evening  
took a walk half a mile up Beaver Creek and  
saw:-

1. *Harporhynchus cristalis*. - Common.
2. *Salpinctes obsoletus*. - At the Post.
3. *Lanius ludovicianus excubitorides*. - One shot near  
the Post & others seen. One attacked Mrs. Lint Morgan's  
Canarybird in the cage and nearly killed it a few  
days ago.
4. *Carduelis frontalis*.
5. *Melospiza fasciata*. - Rather common.
6. *Pipilo aberti*. - Abundant.
7. *Zonotrichia intermedia*. - Abundant.

8. *Scolecophagus cyanocephalus*. - At the Post.
9. *Coccyz corax*.
10. *Lanius ludovicianus*. - One seen on Cherry Cr.
11. *Colaptes mexicanus*. - Common.
12. *Buteo borealis calurus*.
13. *Agelaius phoeniceus*. - A number seen both in the  
pines and on the plain.
14. *Urotaea cinnamomea*. - One seen near the  
pines and on the plain.
15. *Salpinctes obsoletus*. - One seen near  
Cherry Creek. As it was getting  
dark they flew out and a long way, utter-  
ing their accustomed cry.
16. *Merops cucullatus*. - One young male shot.
17. *Querquedula cyanoptera*. - One on Beaver Creek.
18. *Phalaropus gambeli*.

Notes:-

1. *Felis concolor*. - One was seen a short time since  
at Cooper Canyon. The buckboard driver had  
to disturb one in the Agua Fria Canyon, 5-  
miles from the P.O. on the Whittier Road. The  
dog barked at it and they shot it with a pistol and  
shotgun.
2. *Cardinalis virginianus*. - This species breeds  
every year five or six miles from the P.O.  
on the Agua Fria.
3. *Speotyto cunicularia*. - A colony of Burrowing  
Owls live at the above locality. One was brought  
home while I was away on the last scout up to  
General Creek.

3602\* *Lanius ludovicianus excubitorides* ♀ ad.  
showing trace of immixed plumage seen  
233; 324; 48; 108; cul., 17; gape, 25; tarsus,  
28; intertarsal, 24; Cl. ? Sent to Louis G. Zerega.

3603 *Merops cucullatus* ♂ juv.  
465; 655; 189; 102; cal., 38; gape 51; tars., 34;  
Mte., 59; claw 9. Bare part of tibia 8; tip of maxilla 9;  
nides brownish y yellow bill purplish black with spot of horn color near tip of each mandible

tarsi anteriorly and feet inferiorly and web suberely black - tarsi anteriorly & toes superiorly yellowish gray - claws dusky, tipped with horn color.

December 2<sup>nd</sup>, 1884. Ft. Verde, Ariz.  
Took a walk with Mr. Means and Mr. Lillian along the Verde River. Among the birds seen were *Crissal* Texas'ers, *Cortis* Towhees and Say's Juncos, Green-winged Teal and Song Sparrows, *Zonotrichia intermedia*, and Gambel's Quail, and Wilson's Snipes, Kingfishers and Killdeer.

*Lophortyx gambeli*. ♀ a bird of the year.

Shot by E. A. Means. Not measured.

*Canis latrans*, Say. - We were walking up towards the bend of the River to get a shot at some ducks, when I saw a coyote running along the margin of the Verde on the Beaver Bank, towards where we were standing. I ran swiftly to the cover nearest the River, and prepared to shoot it as it passed; but, when it saw me, it took to the water without the slightest hesitation, although the water was swift and deep. It swam swiftly and, emerging on the opposite side of the River, gave a rapid shake and sent the spray flying from its tail by a swift stroke, and dashed up the steep bank. I fired, but the distance was too great for my No. 4 shot. The Wolf shied to one side and gave a little yelp and then departed swiftly on an errand.

December 3<sup>rd</sup>, 1884. Ft. Verde, A. T.

13604 *Harporhynchus crissalis*. ♀ ad.  
303; 317; 95; 143; cul., 39; not., 31; gape, 41;  
tarsus, 34; mte., 31; c., 9.

13605 *Picus scalaris*. ♀ ad.  
185; 340; 105; 72; cul., 20; gape, 23; tarsus, 18.5;  
mte., 20; c., 6.

Mexican Bluebirds seen.

Dec. 4<sup>th</sup>, 1884. Ft. Verde, Ariz.  
This morning I walked a couple of miles from Ft. Verde and thence over to Beaver Creek, and down the creek down to the Verde near the Post.

*Buteo borealis*. - An adult in perfect plumage sat in a cottonwood tree beside the Verde. It came me to get almost within range, then flew away. I missed it; but it only flew a short distance and alighted on another cottonwood, but flew away to another tree across the Verde where I could not follow it.

*Gallinago media arizonae*. - Two or three were found on Beaver Creek. They had little cover to hide them and were excessively shy, flying away before I could get within good range, and circling very high in the air before making wild gyrations as they disappeared at a distance and alighted again when the hunter was near. With much trouble I shot two nice specimens, making good wing shots within.

*Sayornis nigricans*. - At Beaver Creek.

*Sayornis sayi*. - A few seen in various places.

*Fundulus auduboni*. - Common. Feeding with the

*Triturus auduboni*. - A flock of about twenty was found among the aquatic plants and green grass bordering the side branches of the river. The birds scattered when feeding, and when the gun divided up into a number of other runs, and scanned over the neighboring country, and began feeding. They have much the appearance of *diurni* at the ground, lifting their bodies continually, and on wing utter a plaintive cry. The undoubted *Warblers* were feeding with them & I shot both species at the same discharge.

*Harporhynchus crissalis*. - Common.

*Capito aberti*. - Common.

*Junco annectans*. At Beaver Creek. One flock.

*Zonotrichia intermedia*. - Common.



(Dec. 4, 1884 - Continued.)

*Corvus corax*. - A few.*Accipiter cooperi*. - One on the ledge, was  
pursued by a small bird, probably *Sayornis sayi*.*Regulus calendula*. - A few.*Caprimulgus frontalis*. - Common.*Thryothorus fasciatus*. - Ant. stream.*Cypselurus vociferus*. - A few.*Ceryle alcyon*. - Two seen on lower creek.*Sphyrapicus gambeli*. - Abundant.*Certhia borealis*. - The only one seen was on lower creek.3606. *Tamias v. v. wissoni* ♂ ad.

290; 450; 140; 70; cul., 69; gape, 68; bare tibia,

14; tarsi, 32; mte., 39; cl., 7; hind claw, 9.

Bill, olive-brown (darker laterally) for basal 2/5; re-

maining brown - for basal two-fifths. Legs &amp; feet,

luminous, with a greenish cast. Claws, black.

It fell into the water and swam to shore and

tried to hide. When I essayed to catch it it took

to the water and swam so well that I had

some trouble to catch it. It did not dive. Fat.

3607. *Lallinago media wilsoni* ♂ ad.

274; 430; 133; 64; cul., 55; gape, 64; bare har-

d of tibia, 14; tarsi, 32; mte., 36; cl., 6.5.

Above the same as above. Same.

3608. *Cypselurus vociferus* ♀ ad.

270; 512; 168; 125 (to caudal filament); cul.,

23; gape, 23; tibia (bare part), 19; tarsi, 35;

mte., 25; cl., 4.

3609. *Ceryle alcyon*. ♂.

321; 550; 160; 97; cul., 50; gape, 67; tars 12;

bare tibia, 9; mte., 24; cl., 8.5.

3610. *Anthus ludovicianus* ♂ ad.

165; 270; 87; 73; not., 9.5; tars., 17; tars., 23;

mte., 20; claw 5; hind claw 10; iris hazel. bill with

maxilla brownish black. mandible yellowish at base, shading

into brownish black at tip. tarsi &amp; feet dark brown-

claws blackish.

(Dec. 4, 1884 - Concluded.)

3611. *Anthus ludovicianus* ♂ ad.

165; 273; 87; 72; not., 9; gape, 16.5;

tars., 23; mte., 19; claw, 5; hind claw, 9.

Colors same as above.

3612. *Anthus ludovicianus* ♂ ad.

170; 276; 87; 70; not., 9.5; gape 17.5;

tars., 22; mte., 19; claw, 5; hind claw, 10.

Colors as above.

3613. *Anthus ludovicianus* ♂ ad.

170; 279; 87; 71; not., 9; gape 17; tars., 22.5;

mte., 20; claw, 5; hind claw, 9. Colors same as above.

3614. *Anthus ludovicianus* ♀ ad.

164; 268; 84; 68; not., 9; gape, 17; tars., 22.5;

mte., 18.5; claw 4.5; hind claw, 9. Colors as above.

3615. *Anthus ludovicianus*. ♂ ad.

170; 277; 92; 74; not., 9; gape, 17; tars., 22.5;

mte., 20.5; claw 5.5; hind claw, 11.

3616. *Dendroica auduboni*. ♂.

146; 235; 75; 61; not., 7; gape, 13; tars., 20;

mte., 17; claw 4.5.

December 1884.

Spent the day in hunting. Rode to Davidson's ranch  
above Rossville, and, after hunting, through the fields,

skirted the Verde for a mile, and returned through

Brown's place. Many birds were seen which I

failed to identify, as the dead weeds, sunflowers

and bushes made good cover and I was particularly

engaged in shooting "Cotton-tails" and Quail's Quail

of which we got a large number. Skipped the following

species.

*Harporhynchus crissalis*, *Sialia mexicana*, *Regulus**calendula*, *Anthus ludovicianus* (possibly?).

Vogdes saw one in some brush beside the Verde.

*Salpinctes obsoletus*. - Abundant. One seen on our

piazza, several were hopping gaily upon the ground

under the amaranth in the L. M. corner at the Post,

and others were seen in arroyos near the Verde.

They are comparatively silent at this season.

*Anthus ludovicianus*. - A few small flocks.

*Melospiza fasciata*. - Abundant near water.

*Zonotrichia intermedia*. - Abundant.

*Junco* sp. - ? - Common. Probably *J. aikeni*.

*Spizella socialis arizonae*? - A few flocks of what I thought to be this species were seen.

*Carpodacus frontalis*. Common in flocks.

*Chrysomitris pinus*. - A few Pine Finches were seen eating seeds of sunflowers.

*Pipilo aberti*. - In flocks in woods near the River.

*Passerculus*. - Abundant.

in the fields at the ranches. One shot.

*Sceloporus cyanocephalus*, *Sturnella neglecta*,

*Corvus corax*, *Sayornis sayi*, *Picus scalaris*,

*Colaptes auratus mexicanus*, *Buteo borealis calurus*.

Very common. *Accipiter cooperi*, *Accipiter*

*fuscus*. - Several seen hunting Quails. One seen

eating a Gambel's Quail. *Trinunculus sparverius*.

*Falco columbarius*. - While shooting Quails, a Pigeon

Hawk was seen to dart into the sunflower dry

stalks, and a pitious squealing cry was instantly

heard. The Hawk had much difficulty in mastering

its quarry, a female Gambel's Quail, for it would

try to fly and it would dash it to the ground, the

Quail crying loudly, but fighting and struggling

desperately to escape. At length the Hawk succeeded

and I shot him as he sat on his victim's body; but

he escaped wounded into some underbrush.

*Lophortyx gambeli*. - Hundreds seen

3617. *Trinunculus sparverius*. ♂ ad.

270; 585; 192; 146; cul. + cere, 14; cere, 4; cul., 12;  
gape, 16.5; tarsus, 39; mte., 33; cl., 10.5

3618. *Passerculus sandwichensis claudius*. ♂ ad.

151; 229; 74; 12; cul., 11; gape, 12; tars., 22; mte.,  
21; cl., 5.5; hind claw, 9. Iris brown, hazel.

3619. *Lepus sylvaticus arizonae*. ♂ ad. Skull only.

Catalogue of Specimens Collected on the  
Trip from Fort Verde, A.T., to the Tusasupai  
Indian Village on Cataract Creek, A.T., and  
thence skirting the bluffs of the Colorado  
River to Peach Springs, thence to Grand  
Canyon of the Colorado and Williamsons Falls  
to Whipple Barracks, and thence to Fort Verde, A.T.

3478. *Psaltiriparus plumbeus*. ♂ ad. 4.50 x 6.00  
Prescott, A.T. Nov. 5<sup>th</sup>, 1884. Left with Dr. Bishop  
at Ash Fork.

3479. *Picus villosus harrisi*. ♂ ad. 9.70 x 16.25.  
Whipple Barracks, A.T. Nov. 5<sup>th</sup>.

3480. *Accipiter fuscus*. ♂ ad. Nov. 6<sup>th</sup> 1884.  
Ash Fork, A.T. Left with Dr. Bishop.  
11.80; 22.70; 7.05; 6.00; cul. + cere, 70; cere 35;  
cul., 40; gape, 62; tars., 2.10; mte., 1.60; claw 40.  
In blue plumage - sides yellow, cere greenish,  
bill plumbeous at base - becoming black towards  
tip - tarsi & feet yellow; claws black.

3481. *Junco hyemalis*. ♂ ad. Nov. 7<sup>th</sup> 1884.  
Near Stone's Lake. A.T. No measurements in flesh.

3482. *Chrysomitris pinus*. ♂ ad. Nov. 7<sup>th</sup> 1884.  
First tank of <sup>crating</sup> Ash Fork.  
5.10 x 9.15;

3483. *Anthus ludovicianus*. ♂ ad. Nov. 7, 1884.  
Stone's Lake.  
6.70 x 10.85.



✓ 3484 *Sialia arctica* ♂ ad. Nov. 7, 1884,  
Stone's Lake. 7.40 x 13.50.

✓ 3485. *Sialia arctica*. ♂ ad. Nov. 7-1884-Stone's Lake.  
7.55 x 13.90.

✓ 3486. *Sialia arctica* ♀ ad. Nov. 7, 1884. 22 miles north of Stone's Lake.  
7.25 x 13.25.

3487. *Circus hudsonius*. ♂ juv. Nov. <sup>8th</sup> 1884. Stone's Lake  
18.10 x 41.50. Iris hazel.

3488. *Circus hudsonius*. ♂ ad. Nov. 8<sup>th</sup> 1884, Stone's Lake  
18.50 x 43. Irides yellow.

3489. *Circus hudsonius*. ♂ ad. Nov 8<sup>th</sup> 1884. Stone's Lake  
18.70 x 42. Irides yellow.

✓ 3490. *Myiadestes townsendi* ♂ ad. Nov. 9-1884. Black Tanks  
8.90 x 14.25.

✓ 3491 *Oreophilus alpestris* <sup>arenicola (fide Dwight)</sup> ♀ ad. Near Cataract Creek Cañon - Nov. 9-1884  
6.85 x 12.00

3492. *Opaltriparus plumbeus* ♂ ad. Nov. 9-1884. Bluffs border-  
ing Cataract Creek Cañon. Shot just before entering Cañon.

✓ 3493. *Lophortyx gambeli*. ♂ ad. Nov. 10-1884. 25 miles  
from Supai Indian village 3<sup>rd</sup> cañon of  
Cataract Creek. 10.80 x 14.50

✓ 3494. *Lophortyx gambeli* ♂ ad. Nov. 11<sup>th</sup> 1884. in Indian  
village Cataract Creek 11.20 x 15.00.

✓ 3495. *Melospiza fasciata montana*. ♂ ad. Nov. 10-1884. Shot  
in the Cañon, 20 miles from Supai Indian village in  
Cataract Creek Cañon. 6.80 x 9.25.

✓ 3496. *Catherpes mexicanus conspersus*. ♂ ad. Nov. 10, 1884.  
Shot 20 miles from Supai Indian Village.  
5.75 x 7.55.

3497. *Parus montanus* ♂ ad. Nov. 11, 1884. Supai Indian  
Village. 5.70 x 8.75.

3498 *Regulus calindula*. ♂ ad. Nov. 11, 1884. Supai  
Indian Village. 4.50 x 7.15.

✓ 3499. *Telmatorhynchus palustris paludicola* ♂ ad. Nov. 11-84.  
Supai Indian Village. 5.50 x 7.15.

✓ 3500. *Picus harrisi* ♀ ad. Nov. 11, 1884. Supai Indian  
Village. 8.75 x 15.00.

✓ 3501. *Lophortyx gambeli* ♂ ad. Nov. 12<sup>th</sup> 1884. Supai Indian  
Village. 11.40 x 15.00. Destroyed by rats.

✓ 3501. *Spinunculus sparverius*. ♂ ad. Nov. 11, 1884. Supai  
Indian Village. 10.40 x 23.00. Destroyed by rats.  
stomach filled with grasshoppers. Shot on a tree.

✓ 3502. *Lophortyx gambeli* ♂ ad. Nov. 12. 1884. Supai Indian Village. 11.20 x 14.95. Crops filled with corn-peach kernels and beans-cultivated. Destroyed by rats.

✓ 3504. *Agelaius phoeniceus*. ♂ ad. Nov. 12. 1884. Supai Indian Village. 9.75 x 16.25.

✓ 3505. *Amphispiza belli nevadensis*. ♀ ad. Hualapai trail - Cataract creek - Nov. 12. 1884. 6.80 x 10.30.

✓ 3506. *Salpinctes obsoletus* ♂ ad. Hualapai trail - Cataract Creek. 6.00 x 9.00. Destroyed by rats.

3507. *Junco l. shufeldti* ♂ (juv.?) Head of Hualapai trail. <sup>Supai Cañon.</sup> Nov. 12. 1884. 6.30 x 9.80.

✓ 3508. *Mniotilta townsendi*. ♂ ad. Nov. 12. 1884. At the head of the Hualapai trail into Supai Cañon. That the night we came out while waiting for pack train. 9.10 x 14.65.

✓ 3509. *Sialia mexicana*. ♀ ad. Nov. 10. 1884. Pine Springs. 7.00 x 12.80. Not poisoned.

✓ 3510. *Aphelocoma woodhousei* ♀ ad. Nov. 10. Pine Springs. 11.75 x 15.70. Not poisoned.

3511. *Chrysomitris pinus*. ♂ ad. Pine Springs - Nov. 15. 1884. 5.30 x 9.25. Not poisoned.

3512. *Chrysomitris pinus*. ♂ ad. Pine Springs. Nov. 15. 1884. 5.15 x 8.50. Not poisoned.

3513. *Chrysomitris pinus*. ♂ ad. Nov. 15. 1884. Pine Springs. 5.10 x 8.90. Not poisoned.

3514. *Chrysomitris pinus*. ♀ ad. Nov. 15. 1884. Pine Springs. 5.00 x 9.00. Not poisoned.

3515. *Asyndesmus torquatus*. ♀ ad. Nov. 15. 1884. Pine Springs, A.T. 11.45 x 21.50. Not poisoned.

3516. *Carpodacus cassinii*. ♂ ad. Nov. 15. 1884. Pine Springs, A.T. 6.75 x 11.75. Not poisoned.

✓ 3517. *Sialia mexicana*. ♂ ad. Nov. 15. 1884. Pine Springs A.T. 7.12 x 13.50. Not poisoned.

3518. *Merula migratoria propinqua*. ♂ ad. Nov. 15. 1884. Pine Springs, A.T. 10.20 x 16.25. Not poisoned. Destroyed by rats.

3519. *Merula migratoria propinqua*. ♀ ad. Nov. 15. 1884. Pine Springs, A.T. 10.85 x 16.80. Not poisoned. Destroyed by rats.

3520. *Carpodacus cassinii*. ♀ ad. Nov. 15. 1884. Pine Springs, A.T. 6.85 x 11.60. Destroyed by rats.

3521. *Asyndesmus torquatus*. ♂ ad. Nov. 15. 1884. Pine Springs, A.T. Not poisoned. 11.55 x 22.10.

3522. *Asyndesmus torquatus*. ♀ ad. Nov. 15. 1884. Pine Springs, A.T. 11.25 x 21.00. Destroyed by rats.

✓ 3523. *Spizella monticola*. ♂ ad. Nov. 16. 1884. Grand Cañon of the Colorado opposite Pine Springs. 8.75 x 11.20.



✓3524. *Thryomanes bewicki leucogaster*. ad.  
5.50 X — ? Grand Cañon at Pine Springs

3525. *Buteo borealis calurus*. ♂ ad. Nov. 17, 1884.  
Grand Cañon of the Colorado at Pine Springs.

✓3526. *Sphyrapicus williamsoni thyroideus*, ♂ ad.  
Nov. 17, 1884, Grand Cañon of the Colorado  
near Pine Springs, A.T. 9.38 X 16.50.

✓3527. *Loxia curvirostra mexicana*. ♀ ad. Nov. 17,  
1884. Pine Springs, A.T. 6.80 X 11.90.

✓3528. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. 7.20 X 12.35

✓3529. *Loxia curvirostra mexicana*. ♀ ad. Nov. 17, 1884.  
Pine Springs, A.T. Shot by Capt. Roberts. 6.90 X 11.95.

✓3530. *Loxia curvirostra mexicana*. ♀ ad. Nov. 17, 1884.  
Pine Springs, A.T. Shot by Capt. Roberts. 6.88 X 11.70.

✓3531. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. Shot by Capt. Roberts. 7.10 X 12.25  
(12.25)

✓3532. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. Shot by Capt. Roberts. 7.03 X 12.50.

✓3533. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. Shot by Genl. Crook. 7.25 X 11.95  
Destroyed by rats.

✓3534. *Loxia curvirostra mexicana*. ♀ ad. Nov. 17,  
1884. Pine Springs, A.T. Shot by Genl. Crook. 6.97 X 11.70.  
Destroyed by rats.

3535. *Carpodacus cassinii*. ♀ ad. Nov. 17, 1884. Pine  
Springs, A.T. Shot by Genl. Crook. 6.95 X 11.60.  
Destroyed by rats.

3536. *Asyndesmus torquatus*. ♀ ad. Nov. 17, 1884.  
Pine Springs, A.T. 11.35 X 21.00.  
Destroyed by rats.

3537. *Carpodacus cassinii*. ♀ ad. Nov. 17, 1884.  
Pine Springs, A.T. 6.85 X 11.45. Shot by Genl. Crook.  
Destroyed by rats.

✓3538. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. 7.25 X 12.35. Shot by Genl. Crook.

✓3539. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. 7.25 X 12.30. Shot by Genl. Crook.

✓3540. *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884.  
Pine Springs, A.T. 7.45 X 12.60. Shot by Genl. Crook.  
This is a remarkably fine, bright specimen. It  
gives the colors of its changeable parts. Those of  
the others collected scarcely differ from it. Bill,  
dusky-olive, horn-color along edges of mandibles  
and at base below. Tarsi and feet, olivaceous brown.  
Claws, brownish-black. Stomachs of all filled with  
seeds of pine, and a few <sup>small</sup> green buds.

3541. *Carpodacus cassinii*. ♂ ad. Nov. 17, 1884. Pine  
Springs, A.T. 6.70 X 11.50. Shot by Genl. Crook.

3542. *Chrysomitris pinus*. ♀ ad. Nov. 17, 1884. Pine  
Springs, A.T. 5.12 X 8.95. Shot by Genl. Crook.  
Destroyed by rats.

- 3543 *Asyndesmus torquatus* ♂ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by Genl. Crook. Not poisoned. 11.60 X 21.60.
- 3544 *Carpodacus cassinii*. ♀ ad. Nov. 17, 1884. Pine Springs. Shot by Genl. Crook. Not poisoned. 6.65 X 11.10. Destroyed by rats.
- 3545 *Carpodacus cassinii*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by Genl. Crook. Not poisoned 6.60 X 11.25.
- 3546 *Asyndesmus torquatus*. ♂ juv. Nov. 17, 1884. Pine Springs, A. T. Shot by Genl. Crook. Not poisoned. 11.00 X 21.40.
- ~~3547 *Asyndesmus torquatus*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by Genl. Crook. Not poisoned. 11.55 X 22.10. Destroyed by rats.~~
- 3547 *Chrysomitris pinus*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. 5.23 X 8.85. Destroyed by rats.
- ~~3548 *Asyndesmus torquatus*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T.~~
- 3548 *Picus villosus harrisi*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T. 9.65 X 16.50. Not poisoned.
- 3549 *Asyndesmus torquatus*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T. 11.35 X 21.00. Shot by Genl. Crook. Not poisoned.
- 3550 *Chrysomitris pinus*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. 5.05 X 8.85. Shot by Genl. Crook. Destroyed by rats.
- 3551 *Chrysomitris pinus*. ♀ ad. Nov. 17, 1884. Pine Springs, Arizona. 5.08 X 9.00. Shot by Genl. Crook. Not poisoned.

- 3552 *Loxia curvirostra mexicana*. ♂ ad. Nov. 17, 1884. Pine Springs, Arizona. 7.13 X 12.40. Shot by General Crook. Not poisoned.
- 3553 *Loxia curvirostra mexicana* ♂ ad. Nov. 17, 1884. Pine Springs, Arizona. 6.95 X 12.10. Shot by Genl. Crook. Not poisoned.
- 3554 *Carpodacus cassinii*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T. 6.60 X 11.30. Destroyed by rats.
- 3555 *Melanerpes formicivorus*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. 9.75 X 18.40. Not poisoned. 150; 95; cul. 26.5; tars. 24; inter. 26.
- 3556 *Aimophila alberti macrolopha* ♀ ad. Nov. 17, 1884. Pine Springs, A. T. 12.50 X 18.10. Presented to Capt. Aldrich.
- 3557 *Asyndesmus torquatus*. ♂ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by General George Crook. 11.25 X 21.10. Not poisoned.
- 3558 *Asyndesmus torquatus*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by General Crook. 11.30 X 21.50. Not poisoned.
- 3559 *Asyndesmus torquatus*. ♀ ad. Nov. 17, 1884. Pine Springs, A. T. Shot by General Crook. 11.45 X 21.40. Not poisoned.
- 3560 *Asyndesmus torquatus*. ♂ juv. Nov. 17, 1884. Pine Springs, A. T. Shot by General George Crook. 11.30 X 21.35. Not poisoned.



35-61 *Asyndesmus torquatus* ♂ juv. Nov. 7, 1884.  
Pine Springs, Arizona. Shot by General Crook.  
11.75 X 21.60. Not skinned.

35-68 *Toxia curvirostris mexicana* ♀ ad. Nov. 17, 1884.  
Pine Springs, Arizona. Shot by General Crook.  
7.00 X 11.95.

35-69 *Toxia curvirostris mexicana* ♀ ad. Nov. 18, 1884.  
Pine Springs, Arizona. Shot by Dr. Means.  
6.70 X 2.60.

35-70 *Parus montanus* ♀ ad. Nov. 18, 1884. Between  
Pine Springs and Peach Springs, A.T. 5.40 X 8.45.

~~35-71~~ *Sitta carolinensis aculeata* (♀?) ad. Nov. 19, 1884.  
15 m. n.e. of Peach Springs, A.T. 6.05 X 11.40.  
Although the parts were in bad condition for a  
careful examination, I thought I found the  
ovary instead of testicles, although the specimen  
had an intensely black crown - not plumbeous  
as in typical *carolinensis*.

35-73 *Sialia arctica* ♀ ad. Nov. 19, 1884. Peach Springs  
7.00 X 13.00. Destroyed by rats.

35-74 *Sialia arctica* ♀ ad. Nov. 19, 1884. Peach Springs  
7.45 X 14.15. Destroyed by rats.

35-76 *Sialia arctica* ♀ ad. Nov. 19, 1884. Peach Springs  
7.35 X 14.00. Destroyed by rats.

35-77 *Sialia arctica* ♀ ad. Nov. 19, 1884. Peach  
Springs, Arizona. 7.20 X 13.25.  
Destroyed by rats.

35-80 *Amphispiza bilineata* ♂ ad. Sept. 23, 1884.  
35-81 *Amphispiza belli nevadensis* ♂ ad. Nov. 22,  
1884. Big Chino Valley, Arizona. 6.30 X 9.85.

35-78 *Sialia arctica* ♀ ad. See page 233.

35-79 *Sialia arctica* ♀ ad. See page 234.

35-82 *Lanius ludovicianus excubitorides* ♂ ad.  
Nov. 23, 1884. Williamson's Valley. 9.20 X 12.85.  
It came and alighted on a fence - lost balance  
uttering a harsh, snick-like cry, as I sat skin-  
ning birds. It had a grasshopper in its beak  
when I shot it.

### Plant Record

Globular purple flowers ("Euphorbia")	1885
Alnus	Feb. 1st
Salix	Feb. 18th
Mangarita	Feb. 18th
Low cranesbill (in the Post)	Mar. 1st
White fragrant legume	" 2nd
Cottonwood	" 3rd
Indian Pink ( <i>Castilleja floriosa</i> )	" 5th
Blue legume (at Aytes 4-story dwelling)	" 10th
Corydalis	" 17th
Black ash	" 17th
Eseronia	" 18th
The <i>Caesalpinia</i> in the vicinity of Fort Verde, Arizona are as follows:	

1. *Mimulus* (*Leucophanthera*) ?  
Soace. Flowers end of July.
2. *Cereus* (*Echinocereus*) *phoeniceus*. April
3. *Opuntia* (*Platyspuntiata*) *Rafinesquii* *fusiformis*.
4. *Opuntia* (*Cylindropuntia*) *Whipplei*.
5. *Opuntia* (*Cylindropuntia*) *frutescens longispina*.
6. *Mammillaria*  
*Artemisia* in full flower  
Globular purple flowers  
Low Cranesbill in the Post

1886  
Febr. 2nd  
Mar. 24.  
Febr. 1st.

Notes on Fishes: -

On Jan 11<sup>th</sup>, 1885 I netted a large number of fishes. The largest specimen was about six inches in length and others were not more than an inch long. They were all caught along the margin of the Rio Verde opposite to the Post of Fort Verde. All of the larger ones were Catostomidae, and the smaller ones were minnows and the young of the fish called "Gila Trout" and "Bony-tail", at least I think they are the fry of that species. They are preserved in four bottles. The largest bottle contains the largest specimens. They are Catostomus cyphus of Lockington (Jordan and Gilbert, p. 129). Among them are a few specimens of paler coloration, larger scaled and with about twelve instead of fifteen dorsal rays.

In other bottle contains about fifty minnows and a few dark spotted, tomt, small-eyed fishes resembling Rhinichthys atronasus. The two small bottles contain mixed specimens of the several species and forms above mentioned.

There are notes on Fishes in this Journal on pages <sup>86</sup>123, 182, 184, 199, 256, 286, 287, 393, 414 and 418. In Journal of San Carlos trip, Fishes are noted on pp. 23, 29.



December 10<sup>th</sup>, 1884.

- V. 3620. *Zenaidura carolinensis* ♀ ad.  
292: 447: 145: 138: cul., 12.5: gape, 20:  
tars., 21: mte., 26: claw 7.
- V. 3621. *Chamaea passerina* (L.) Sw. ♂ ad.  
Ground Dove. Irides a narrow circle ~~yellow~~  
orange red - bill reddish at base  
shading through dusky brown to the  
blackish tip. Tarsi and feet flesh  
color - claws brownish. Under surface  
of wing light reddish brown except  
the proximal quills which are  
brownish slate color - barely edged with  
the light <sup>secondary</sup> ~~primary~~ and  
distal <sup>quills</sup> tipped with the same.  
168: 280: 87: 63: cul., 11: gape 15:  
base of bill to occiput, 23: tars., 16:  
mte., 20: claw 5. Crop filled with small,  
rough seeds.
- V. 3622. *Sayornis sayi* ♂ ad. In perfect winter dress.  
192: 328: 100: 88: nost., 11: gape, 22: tars., 21:  
mte., 18: cl., 6. Iris, hazel. Bill, black with a  
brownish tinge at base of mandible; tarsi, feet  
and claws black. Lining of wings <sup>very</sup> pale rufous.  
Underside of quill-feathers pale at base (about  
like greater wing coverts, growing darker terminally).
- V. 3623. *Picus scalaris* ♀ ad. 187: 325: 99: 71:  
cul., 21.5: gape, 25: tars., 19: mte., 21: cl., 8.

In addition to the above specimens collected,  
the following species were noted: -

*Harporhynchus crissalis*. - Occasionally utters a  
few notes of its song.

*Regulus calendula*. - Abundant; but none sing.

*Anthus pratensis ludovicianus*. - On the margin  
of the Verde.

*Dendroica auduboni*. - A flight with *Anthus*  
beside the water, spending much time on  
the ground, but of course does not wade like

the Titlark

*Lanius ludovicianus excubitorides*. - Common.  
*Carpodacus frontalis*. - Common. One flock  
which contained several hundreds was  
seen feeding in the weeds and upon the  
ground in a patch of dry paper stalks  
perhaps upon their seeds. Not heard singing.

*Melospiza fasciata*. - Common.

*Zonotrichia intermedia*. - A few flocks.

*Philobabti*. - In flocks or families. Rather  
shy and disposed to hile. Makes a  
whirring sound when flying. Rather silent.  
Its startling call-note is seldom heard,  
and subdued when uttered; but in its  
place a low "turr" like. *Zonotrichia*  
*albicollis* in the East.

*Colaptes auratus*. - At the Post.

*Sturnella neglecta*. - Abundant. One note  
very similar to a Blackbird's or Hermit  
Thrushes. In large flocks.

*Coccyus erythrorhynchos*. - Scarce.

*Sayornis sayi*. - Rather common.

*Ceryle alcyon*. - Only one seen on the Verde.

*Picus scalaris*. - Common.

*Picus villosus*. - One or two were seen. I  
have not noted the species here before.

*Colaptes auratus mexicanus*. - Common.

*Buteo borealis calurus*. - Common.

*Buteo borealis*. - One seen? It had very  
broad wings and appeared large, but I  
did not get a near view. If any other  
species than this it was. *Urubaia anthracina*.

*Junco oreganus*. - Several.

*Reithrodon cooperi*.

*Haliaeetus leucocephalus*. - A fine adult  
set on a tree across the Verde River,  
which had risen on account of the  
two days' rain. The rain-gauge measured  
2 inches rainfall. I waded across it

River, however, but did not get a shot. This is the first one I have seen in Arizona. It was common a few years ago on the Verde, and nested opposite the Rest, on a large Cottonwood. By crossing the River I also got a specimen of

*Chamaepelia passerina*. This fuging Pigeon arose at my feet with a flock of Carolina Doves and Gambel's Quail. The buzzing noise of its wings and the bright rufous coloring attracted my attention and I shot it as soon as it alighted on a branch 20 feet from the ground. It is the only one I ever saw!

*Zenaidura carolinensis*. - Abundant in large flocks and very fat.

*Lophortyx gambelii*. - One that I wing-tipped in an open spot gave me a hard run, but I caught & brought it home alive. It was rather tame and ran with wonderful swiftness from one room to another. I noted that it never separated the feathers of its crest while carrying it, it remained perfectly quiet in the pocket of my shooting coat except when it heard other Quails calling when it struggled to get out & join them.

*Oxyechus vociferus*. - 71 specimens of a dozen were seen, but less abundant than earlier in the season apparently.

*Tringoides macularius*. - One pair seen near the mouth of Beaver Creek on the Verde bank.

*Ardea herodias*. - A number seen. The ground was wet and they were seen a good way from the Verde looking for food upon the ground.

*Anas boschas*. - One flock.

*Tringula ~~affinis~~ mirila*. - One or two flocks.

*Querquedula carolinensis*. - One flock.

December 11<sup>th</sup>, 1884.

Still showery in the Verde Valley and heavy snow on the hills around.

*Sulphurites obsoletus*. - One went under the piazza flooring, through an open board and stayed a good while. Very gentle & silent.

*Notes*. - In "The Century Illustrated Monthly Magazine," for December, 1884, is the best account of the Rocky Mountain Goat-extinct. The author is an Englishman and spent a summer in hunting them and learned their habits. He shot a number personally.

In "Popular Science Monthly", vol. xxvi, p. 267, December, 1884, is an article entitled: "More about The Beaver", by Samuel Aughey of Lincoln, Nebraska, which is worth referring to. There was an article in the May, no. entitled "The Beaver and his Works", which see also.

December 15<sup>th</sup>, 1884 Fort Verde, A.T. Went out for a couple of hours along the Verde shore and saw a flock of Mallards (*Anas boschas*) and shot a Buff-breasted Merganser (*Mergus merganser*). A single Spotted Sandpiper (*Tringoides macularius*) was shot, which had a few spots on the sides behind; and I also shot a Killdeer (*Oxyechus vociferus*). Saw 1's, Doves, Crows, Thrashers, Juncos and a species of *Spizella* which may be, montana were seen, and plenty of meadow Larks, Savanna Sparrows & Great Blue Herons and a Kingfisher were among the other species noted. I saw one Jack and one Cotton-tail Rabbit, but their tracks were not frequent in the snow. They have kept close.



December 15<sup>th</sup>, 1884.

3624. *Oxyechus vociferus*. ♂ ad.  
263: 532: 166: 104: cul., 21.5: gape 23:  
fore part of tibia, 21: tars., 38: Mte., 29: claw, 6.
3625. *Spingoides macularius*. ♀ ad. Quite fat.  
193: 340: 108: 58: cul., 23.5: gape 25.5:  
fore part of tibia, 11: tars., 23: Mte., 24: claw, 4.  
Iris hazel, bill with maxilla brown at base  
becoming blackish at tip, mandible flesh  
color tipped with blackish, tarsi + feet  
flesh color, claws flesh color at base residue blackish.
3626. *Accipiter fuscus*. ♀ ad.  
338: 660: 205: 175: cere + cul., 20: eye, 9: cul., 12:  
tars., 56: Mte., 14: claw, 11. Claw of hallux, 16.  
Iris reddish orange, - cere g, caudal yellow, bill,  
with base of mandible + maxilla laterally,  
blue, residue plumbeous black - tarsi +  
feet lemon yellow - claws black. Stomach empty.
3627. *Passerculus savanna alaudinus* ♂ ad.  
144: 240: 72: 60: cul., 10: gape, 11: tars., 21:  
Mte., 19: claw 5.  
Iris hazel - bill with maxilla brownish black  
mandible flesh color - tarsi + feet flesh  
color, claws pale brownish.
3628. *Mergus merganser* ♂ juv.  
660: 920: 270: 123: cul., 54: bill from nostril, 34:  
gape 73: fore part of tibia, 10: tars., 55: Mte., 80:  
claw, 9. Iris orange yellow, bill vermillion  
with maxilla purplish red - dusky in the  
median line - whitish or horn color toward tip  
of both mandibles - mandible vermillion  
tarsi + feet reddish orange - toes dusky beneath.  
This specimen is moulting and the ventral surface  
is curiously mixed with the adult and juvenile coloring.  
The fore part of breast, flanks, inside of legs, crossing,  
and under tail-coverts are rich buff as is also a  
narrow streak down the center of the breast, which  
cuts in two the large patch of pure white which  
covers all of the central lower surface. A few  
of the dark feathers of the head are appearing in the

the white skin - later.

December 16<sup>th</sup>, 1884.

Sent Vogel's and shooting and brought home  
a pair, male and female, of adult Red-head Ducks  
(*Erythra americana*) and a young drake of the  
American Widgeon (*Marca ~~peruana~~ americana*).

December 17<sup>th</sup>, 1884.

Spent nearly the whole day in hunting with  
Ezra Vogel. He killed two male Ring-billed  
Blackheads (*Fulix collaris*), from a large flock,  
but his dog in retrieving them bit the skin all  
up so that they could not be preserved. These are  
the first I have seen. The following named  
Birds were seen.

*Harporhynchus crissalis*. - Common. Found him  
to hunt for food beside the Verde upon the  
bare sand. A few notes of its song were heard,  
just enough to remind one that it could sing.  
The weather has been intensely cold. The  
thermometer has registered 7 above zero and  
perhaps lower. The snow is several feet deep  
in the hills around us, and has been several  
inches deep here for a week, scarcely wasting at  
all during the daytime. The still places in the  
Verde River are all frozen.

*Sialia mexicana*. One flock only.

*Regulus calendula*. - Common in the sagebrush  
and cottonwoods.

*Thryothorus bewicki leucogaster*. - Two were seen  
and one shot in the brush. One was in the top  
of the tall cottonwoods when seen. It lifts its  
tail up and climbs about like a Titmouse, which  
its habits resemble.

*Salpinctes obsoletus*. They stay in our backyard  
continually. Are partial to the wood pile but  
come on the porch and windowsill and  
are so tame that you can almost touch them.

Dec. 17.



They seldom ~~or~~ tilt their tails up; but when closely approached they throw their head backward till the bill points nearly straight upward, with the head drawn close to the body.

*Sitta carolinensis aculeata*. - One was shot in a cottonwood. It is the only one I have seen in the Verde bottom, although the species is common in the Chisos Creek forest, and I have seen a few in Copper Canon in the Sierras.

*Eremophila alpestris*. - Large flocks have come down into the Valley since the heavy snow fell upon higher ground.

*Anthus ludovicianus*. - Scattered along the margin of the Verde in some abundance.

*Dendroica auduboni*. - Several seen.

*Dendroica*

This is the first one I have found in Arizona.

It was pecking at a bunch of dry leaves in a cottonwood tree. I thought it was a Green-backed Goldfinch (*Astragalinus psaltria*) until I picked up the dead bird.

*Lanius ludovicianus excubitorides*. Common.

Its singular cry was often heard.

*Carpodacus frontalis*. - Abundant.

*Passerculus savanna*. - A few along the margin of the Verde.

*Coereba graminea confinis*. One shot.

*Zonotrichia intermedia*. - Scarce.

*Spizella monticola*??). A few sparrows were shot at near the Post which had a note like the Tree Sparrow, but they were shy & not positively identified.

*Junco* sp. - ?? Juncos are rather common but none of those seen were specifically identified.

*Pipilo aberti*. - In families. Make a whurring sound when they fly.

*Corvus corax carolinensis*. A few seen.

*Scolecophagus cyanocephalus*. In cottonwoods beside the River.

Dec. 17

*Limnallus neglecta*. Common. They stay close to the water and often wade in with the Litterbugs and Killdeer.

*Sayornis sayi*. - Several seen.

*Tricus scalaris*. Common.

*Picus villosus*. - One.

*Colaptes auratus mexicanus*. - Common in the cottonwoods beside the Verde. One male that I shot had red feathers in the nape.

*Ammodramus phaeopus*. Scarce.

*Accipiter cooperi*

*Accipiter fuscus*.

*Buteo borealis calurus*. Abundant in various conditions of plumage one appeared to be perfectly black with red tail and another was pure white below with pale back and pale rufous tail.

*Zenaidura macroura*. Abundant. They seem to have suffered much from the bitter cold and snow. They sit on the ground or lie rather with feathers ruffed up and allow you to walk close up to them before taking to flight. Many of them were thus reduced, and so lean as not to be fit to eat when shot.

*Lophortyx gambeli* does not seem to mind the cold weather in the least. I saw dozens of large flocks.

*Oxyechus vociferus* was rather common.

*Ardea herodias*. - Several seen.

*Bernicla canadensis*. One flock of seven was put up twice but none shot. Mr. Vogel saw them yesterday at the same place.

*Anas boschas*. One large flock.

*Nettion carolinensis*. One flock.

*Fulix marila*. Common.

*Fulix collaris*. One flock.

*Mergus merganser*. Common.

*Fulica americana*. Two seen. One frozen in ice.



Dec. 17<sup>th</sup>*Ceryle alcyon*. Several were seen on the lake.3629. *Dendroica palmarum* *fulva* *calata* *lutescens*.

♂ Bill shot off; allowance for it made in measurement of length, 129; 198; 62; 54; most, —; gape, —; tarsus, 18; mte., 15; cl., 5. Iris, hazel. Bill dusky brownish at base, the rest shot away. Tarsi feet & claws, dusky plumbeous. Fat and in excellent condition.

3630. *Colaptes auratus mexicanus*. ♂ ad.

346: 545: 165: 132: cul., 43; gape, 42; tars., 32; mte., 34; claw, 13. Iris plumbeous black - iris dark red - tarsi, feet & claws plumbeous.

3631. *Colaptes auratus mexicanus* ♂ ad. This specimen has a strongly indicated red nuchal patch and black spotting in white of rump. 336: 545: 167: 122: cul., 42; gape, 44; tars., 32; mte., 34; claw, 12. Colors of parts same as above.

3632. *Tinnunculus sparverius*. ♂ ad.

273: 575: 190: 140; culmen + cere, 15; cere, 4; adnex., 12; gape, 18; tarsus, 38; mte., 31; cl., 9.5.

3633. *Fulica americana* ♀ ad. Found frozen to death beside Verde River.

370: 646: 177: 58: cul., show feathers, 41; gape, 32; bare part of tibia, 20; tars., 55; mte., 79; claw, 12. Iris orange red, bill white banded with red near the end - the frontal plate dark brownish red, tibia with an orange red band - tarsus bright yellow - shading of plumbeous towards the extremity of the toes - claws plumbeous black - joints dusky. Found frozen to death.

3634. *Cokhortyx gambelli*. ♀ ad.

275: 360: 110: 101: cul., 48; gape, 13; tars., 32; mte., 35; claw 8.5.

3635. *Harporhynchus crissalis*. ♂ ad.

315: 330: 105: 145: cul., 39; most, 31.5; gape, 43; tars., 33; mte., 31; claw 9. Bill black - iris pale straw color, tarsi feet & claws plumbeous brown.

3636. *Sitta carolinensis aculeata*. ♂ ad.

160: 292: 95: 55: cul., 21.5; gape, 25; tars., 19; mte., 22; claw 6.

3637. *Proccetes gramineus confinis*. ♀ ad.

153: 263: 80: 66: cul., 11; gape, 13; tars., 21; mte., 20; claw, 6.

3638. *Carpodacus frontalis*. ♂ imm. adult.

148: 248: 78: 63: cul., 10; gape 11; tars., 17; mte., 19; claw, 6.

3639. *Carpodacus frontalis* ♂ ad.

158: 258: 80: 67: cul., 11; gape 12; tars., 18; mte., 20; claw, 5.

December 19<sup>th</sup>, 1884. Ft. Verde, Ariz.3640. *Chondestes gramineus* ♂ ad.

184; 290; 91; 82; cul., 14; gape, 14; tarsus, 21; mte., 20; cl., 5.

3641. *Regulus calendula* ♂ ad.

111; 181; 60; 47; most, 6; gape, 11.5; tars., 20; mte., 11; cl., 4.

3642. *Proccetes gramineus confinis*. ♂ ad.

162; 270: 83: 72: cul., 11; gape 12; tars., 23; mte., 20; claw 6.

3643. *Proccetes gramineus confinis*. ♀ ad.

160: 265: 82: 70: cul., 12; gape 13; tars., 21; mte. 20; claw 5.

3644. *Melospiza galapago* ♀ ad.

length to end of toes, 1020; end of tail, 1010; stretch, 1370: 430: 350: cul., 38; most, 25; gape, 54; tars., 130; mte., 93; claw, 18.5. Iris, hazel. Bare skin of head, red. Base of bill, dusky purplish; residuum, horn-color. Tarsi, purplish brown; feet, blackish; claws, same color.

3645. *Thryomanes bewickii leucogaster* ♀ ad.

135; 173; 57; 58; cul., 14; most, 9.5; gape, 17.5; tarsus, 18; mte., 16; cl., 4.5.

*Calamospiza bicolor* } Both abundant  
*Chondestes gramineus* }

December 21<sup>st</sup>, 1884.

3646. *Cardinalis virginianus igneus*. Cape Cardenal.  
♂ ad. Shot on the Agua Fria, near the Post Office.  
243; 310; 103; 123; cul., 20.5; gape 19.5;  
width of bill at gape, 14; height of bill at base, 17;  
tars., 26; mte., 24; claw 7; hallux, 9; its  
claw, 8.5. Iris hazel, bill bright red, with  
maxilla faintly tipped with dusky - tarsi  
feet & claw dark brown.
3647. *Melospiza fasciata*. ♀ ad.  
233; 140; 140; 95; cul., 24.5; gape, 27.5;  
tars., 20; mte., 24; claw, 8.5. Cherry Creek.

December 22<sup>nd</sup>, 1884. Ft. Verde.

3648. *Sialia mexicana*. ♂ ad. 176; 325; 107; 72.  
nostr., 9; gape, 19; tarsus, 21; mte., 21; claw, 6.
3649. *Sialia mexicana*. ♀ ad. 171; 315; 105; 68;  
nostr., 9; gape, 19; tarsus, 21; mte., 21; cl., 6.
3650. *Oxyechus vociferus* ♂ ad. Beaver Creek  
260; 500; 159; 106 (filamentous prolongation  
making 8 mm. of its length). Cul., 20; gape, 21;  
tars., 36; mte., 26; cl., 5; bare tibia 16.  
Length to end of tars., 255.
3651. *Oxyechus vociferus* ♂ ad. Beaver Creek.  
262; 508; 165; 105; cul., 21; gape, 23;  
tarsus, 35; mte., 24; cl., 5; bare tibia, 19.  
Length to end of claws, 257.
3652. *Scolecophagus cyanocephalus* ♀ ad.  
242; 380; 122; 108; cul., 20; gape, 22.5;  
tarsus, 32; mte., 27; cl., 7.5.
3653. *Pipilo aberti* ♀ ad.  
238; 291; 90; 117; cul., 15; gape, 15.5;  
tarsus, 29; mte., 28; cl., 9.
3654. *Sayornis sayi* ♂ ad.  
200; 325; 115; 87; nostr., 11; gape, 23  
tars., 20; mte., 18.5; cl., 6. This bird was  
uttering a loud sweet twitter, with little  
effort at a regular song at intervals. It is  
truly a singing bird & its efforts are quite successful.

December 24<sup>th</sup>, 1884.

3655. *Lophortyx gambeli*. ♀ ad.  
285; 368; 113; 107; cul., 11; nostr., 8.5; gape, 13;  
tars., 32; mte., 35; claw 9.

December 25<sup>th</sup>, 1884.

3656. \* *Sayornis sayi* ♂ ad. Shot by Mrs. E. A. Means.  
100; 342; 111; 92; nostr., 12; gape, 24; Tars., 25;  
mte., 19; claw, 5.5. Iris hazel, bill, tarsi,  
feet & claws, black.
3657. \* *Regulus calendula*. ♂ ad. Shot by - Mrs. E. A. Means.  
113; 181; 61; 48; nostr., 6; gape, 12; tars., 19;  
mte., 13.5; claw, 4.5.
3658. \* *Thryomanes bewicki leucogaster* ♂ ad. Shot by Mrs. E. A. Means.  
137; 182; 58; 63; cul., 15; nostr., 9.5;  
gape, 18; tars., 18; mte., 16; claw, 4.5.
3659. \* *Pipilo aberti*. ♂ ad. Shot by Mrs. E. A. Means.  
233; 289; 92; 117; cul., 16; gape, 16;  
tars., 29; mte., 27.5; claw, 9.5.
3660. \* *Lophortyx gambeli* ♀ ad. Shot by Mrs. E. A. Means.  
272; 372; 116; 110; cul., 11; nostr., 8; gape, 12;  
tars., 32; mte., 35.5; claw 10.

Note. - Although it is generally conceded by  
persons living in Arizona that the "Mexican  
Lion" (*Felis concolor*) is a cowardly and  
timid animal, still there are some stories  
told of its having attacked man, one of which  
was told me to-day, as follows: A man who is  
now living in the valley of the Rio Verde a few  
miles from here whose name is Kelly, was walk-  
ing through a corn-field when a "Lion" sprang  
upon him. He defended himself with his knife  
and drove the beast off, but with much trouble.  
I hope to interview Mr. Kelly personally on the subject.



December 27<sup>th</sup>, 1884.

No. 155. *Lepus sylvaticus arizonae*. Desert Hawk. ♂ ad.  
Total length, 420. Head and body 353. Tip of nose  
to end of outstretched hind leg, 565; eye, 40; ear, 63  
measures; tip of ear, 163; occiput, 77.  
Tail to end of vertebrae, 44; hairs 67. Length of  
manus, 151; pes, 102. Length of fore  
leg, 118; hind leg, 185. Height of ear  
from crown, 88; greatest breadth 48.  
Fore-arm 70 (to elbow) 90. Ears, broadly  
edged with black & black tipped for 9 mm.

No. 156. *Lepus sylvaticus arizonae*. Desert Hawk. ♂ ad.  
Total length, 390. Head and body, 327. Tip of nose  
to end of outstretched hind leg, 525; eye, 39; ear 64  
tip of ear, 164; occiput, 73. Tail to end of  
vertebrae, 39; hairs 63. Length of manus, 146  
pes, 90; length of fore leg, 108; hind leg, 170.  
Height of ear from crown, 84; breadth 50.  
Fore-arm to elbow, 67; leg, 100.  
Chest girth 185.  
Ears bordered and slightly tipped with dark brown.

No. 157. *Lepus sylvaticus arizonae* ♂ ad. Desert Hawk.  
Total length, 385. Head and body, 327. Tip of  
nose to end of outstretched hind leg, 520; eye, 38.  
ear, 62; occiput, 76; tip of ear, 150.  
Tail to end of vertebrae, 44; hairs, 68.  
Length of manus, 45; pes, 93. Height of  
ear above crown, 85; width, 51.  
Length of fore leg, 106; hind leg, 180.  
Chest girth, 190.

No. 158. *Geococcyx californianus*. ♂ ad.  
590: 550: 188: ~~330~~ 310: cul., 56; nostr., 38;  
gape, 68; width of bill at gape, 26; depth of  
bill over nostr., 14; tars., 62; mte., 45;  
claw, 12.5.

No. 159. *Amphispiza belli nevadensis*. ♂ ad.  
166: 253: 81: 80: cul., 11; gape 12; tars., 22;  
mte., 35; claw 5.

No. 160. *Amphispiza belli nevadensis*. ♂ ad.  
165: 252: 80: 80: cul., 11; gape 12; tars., 22;  
mte., 18; claw, 4.5.

No. 161. *Amphispiza belli nevadensis*. ♂ ad.  
165: 255: 82: 80: cul., 11; gape 12; tars., 22;  
mte., 19; claw, 5.

Today I rode to Clear Creek to see  
a patient with a broken clavicle. I shot two  
bobcat-tails (*Lepus arizonae*) right at a  
crossing the creek and hung them up in a  
sagebrush bush until I returned, when I  
got off my horse to get them and found  
rabbits so abundant that I had shot  
six more before returning to my horse with  
the other two. I also shot some quail,  
and the true specimens of *Amphispiza*  
*belli nevadensis*, a species which has  
become quite abundant about Clear  
Creek, inhabiting the same situations that the  
*Amphispiza bilineata* does in summer.

December 30<sup>th</sup>, 88.

Spent the greater part of the day in hunt-  
ing Beaver Creek up to the Cliff-dwellings.  
Fiber & bitumen. - One Muskrat seen.

*Lepus callosus texianus*.  
*Lepus sylvaticus arizonae* } Abundant.

Birds: -

1. *Phylloscopa arizonae* - Abundant.  
was shot, but could not be found.

2. *Harporhynchus crissalis*. - Abundant.

3. *Sialia mexicana*. Abundant. Feeding on insects.

4. *Regulus calendula*. Abundant. Not singing.

5. *Salmistes obsoletus*.

6. *Anthus ludovicianus*.

7. *Eremophila alpestris*.

8. *Dendroica auduboni*. - Abundant. It has  
the habits of a flycatcher and associates with  
*Sayornis sayi*, beside the water.

9. Carpodacus frontalis. Abundant.
10. Stragalinus tristis. Quite a number were seen along Beaver Creek feeding in small flocks upon the seeds of sycamores (Platanus occidentalis), uttering its sweet call note ("twee") and chattering notes exactly the same as in the East. These are the first I have seen in Arizona.
11. Passerculus sandwichensis alaudinus.
12. Pooecetes gramineus confinis.
13. Chondestes grammia. About the East.
14. Zonotrichia gambeli intermedia. - This is the only Zonotrichia that I have seen here lately. They are very abundant. Probably a few leucophrys are mixed with them; but all that I have observed carefully were intermedia.
15. Junco annectens. - This Junco is abundant, but without doubt some of those seen are of other species than this. I have seen too many to collect specimens and determine just what species we have here now.
16. Tuphisipiza belli nevadensis. - Common in certain localities. Its note and general appearance are similar to the Junco.
17. Melospiza fasciata. - Abundant
18. Pipilo aberti. - Abundant.
19. Calamospiza bicolor. - In small flocks.
20. Agelaius phoeniceus. - A few females are with Bonaparte Blackbirds about the corals, but no males.
21. Scelopophagus cyanocephalus. The large flocks frequenting the corals in the daytime all retire themselves to the brush and little patches of rushes along the streams at night.
22. Corvus corax cafer. - Very scarce.
23. Sturnella neglecta. Common.
24. Sayornis sayi. Abundant.
25. Ceryle alcyon. Common on Beaver Creek and the Verde River.

26. Picus scalaris. - Abundant.
27. Colaptes auratus mexicanus. Abundant in small flocks.
28. (Buteo virginianus Subarcticus). - An old male in gray plumage, without much if any trace of rufous, was shot in a sycamore-tree near Beaver Creek. It fell in the stream but swam swiftly to shore, jerking its wings vigorously, and climbed onto some brush on the bank. When I tried to catch him, he hoisted up on the lower boughs of some trees and sooner than be captured it sprang boldly into the stream and swam ashore on the opposite bank, where it kept along so swiftly that it would soon have escaped had I not shot it again, to prevent its hiding in the bushes before I could cross the stream.
29. Buteo borealis calurus. Abundant.
30. Bircus hudsonius. - Common.
31. Syrnunculus sparverius. One male seen.
32. Geranodura carolinensis.
33. Lophortyx gambeli. One flock ascended a vertical wall of limestone for an hundred feet, flying straight up from the edge of the river.
34. Oxyechus vociferus.
35. Tringoides macularius. One on the Verde.
36. Ardea herodias. One on Beaver Cr.
37. Megascops townsendi. One on Beaver Cr.
38. Nettion carolinensis. Quail male shot.
39. Bucephala clangula. Golden Eye. I saw one on Beaver Creek and met a man with two more that he had shot there.
40. Aythya ferina americana. Met a man who had four which he shot on Beaver Creek to-day.
41. Anas bosca. Several Mallards seen.
42. Fulix marila. One flock.
43. Bernicla canadensis.



No. 158. *Astragalinus tristis*. ♂ ad.133: 239: 77: 57: cul., 10.5: gape 11.5:  
tars., 14: Mte., 17: claw 5.No. 159. *Astragalinus tristis*. ♂ ad.130: 238: 78: 56: cul., 11: gape, 12:  
tars., 14: Mte., 16: claw, 5.Iris hazel - Bill dusky above brown yellow  
along and at base of mandible, - tarsi  
feet + claws, brownish flesh color.No. 160. *Nettion carolinensis*. ♂ ad.398: 605: 183: 85: cul., 37: from nostril,  
29: gape 43: height of bill at base, 16:  
width at gape, 14: bare tibia, 12: tarsus, 37: mte., 45  
cl., 5. Bill black, with the "nail" on lower mandible  
purplish-brown. Tarsi, bare tibiae + toes gray.  
webs and claws, blackish, the latter shading to  
horn-color laterally.No. 161. *Colaptes auratus mexicanus*. ♂ ad.335: 535: 165: 122: cul., 42: gape, 46  
tarsus, 32: mte., 35: cl. 12.

Naked on nape.

No. 162. *Bubo virginianus subarcticus*. ♀ ad.525: 1330: 400: 235: cul. + cere, 38:  
cere, 19: cul., 25: gape, 41: tars., 57:  
Mte., 72: 1st claw (hallux) 26: 2nd cl., (inner) 25:  
3rd, 30: 4th, 31. Irides yellow, bill +  
claws plumbeous black - bare extremity  
of toes, greenish. Stomach filled with bones of rodentsNo. 158. *Lepus sylvaticus arizonae*. ♂ ad.Total length, 390. Head and body, 315. From tip of  
nose to end of outstretched hind-leg, 575: eye, 36:  
ear, 67: tip of ear, 160: occiput, 76.  
Tail from root to end of vertebrae, 50: hairs, 75  
Ears, height above crown, 93: width 51  
Length of manus, 45: of pes, 94  
Length of fore leg, 110: of hind leg, 180  
Between eyes 34. Chest girth

*crookii*  
No. 159. *Lepus sylvaticus crookii*. White-tailed Deer. ♂ juv.  
From tip of nose to eye, 587: 150: ear, 948: 240:  
occiput, 280: tip of ear, 450:  
Lachrym. from inner canthus to lachrymal  
opening, 13: lachrymal opening, 13.  
Height of ear from root, 145: Ear, 190: tip of nose to  
base of horns, 225: ears, breadth 110:  
girth of head behind horns, 420: distance  
between eyes, 100: length of horn in a  
straight line, 160: forks nearly equal + about  
in length about 50: circumference of  
horn above base, 140: Tail to end vertebrae  
210: end of hairs 275. Bare space of gland  
on hind leg (only) is narrow, 13 mm long  
and hard to find in the bushy hair growing  
in that part. Shot near the base of Bill Williams  
Mountain by C. H. Allabach Dec. 5<sup>th</sup>, 1884.

January 1<sup>st</sup> 1885.No. 160. *Nettion carolinensis*. ♀ ad. Weight 100g.360: 590: 177: 78: cul., 35: from nostril, 28:  
gape 43: height of bill at base 13: width at gape,  
13: bare tibia, 9: tars., 30: Mte., 42: cl., 17.No. 161. *Bubo virginianus subarcticus*. ♀ ad.520: 1255: 355: 215: cul. + cere, 42:  
cere, 19: cul., 27: gape, 46: tars., 54:  
Mte., 70: cl., 29: claw of hallux, 24: inner claw,  
31: outer claw, 25. Colors same as No. 3669  
preceding. Stomach filled with bones and  
hair of small rodents, mostly rats (*Neotoma*,  
*albicula*).January 3<sup>rd</sup> 1885. Ft. Verde, A.T.No. 160. *Lepus sylvaticus arizonae*. ♂ ad.Total length, 400. Head and body, 330. Tip of nose to end of  
outstretched hind-leg, 535: eye, 36: ear, 65: tip of  
ear, 148: occiput, 72: to end vert., 45: hairs,  
70: Ear height above skull, 82: greatest breadth  
47: Length of manus, 47: of pes, 95: length  
of fore leg, 108: of hind leg, 178: Between eyes  
33: Chest girth, 187.

1. "Camelion." *Oceloporus*

Total length, 240. Nose to anus., 131; Anus to end of tail 109; Nose to eye, 14; ear, 27

January 3<sup>rd</sup> Continued

✓3672. *Astragalinus tristis*. ♂ ad.  
127: 225: 74: 53: cul., 10: gape, 11.5:  
tars., 15: mte., 16: claw, 5.

✓3673. *Astragalinus tristis*. ♀ ad.  
133: 230: 75: 56: cul., 11: gape 12:  
tars., 14: mte., 15.5: claw, 4.5.

✓3674. *Astragalinus tristis*. ♀ ad.  
136: 230: 75: 54: cul., 11.5: gape, 12:  
tars., 14: mte., 17: claw, 6.

✓3675. *Astragalinus tristis*. ♀ ad.  
135: 232: 76: 57: cul., 11: gape, 12:  
tars., 13.5: mte., 16: claw, 5.5.

✓3676. *Astragalinus tristis*. ♀ ad.  
136: 230: 76: 58: cul., 11: gape, 12: tars., 13:  
mte., 15: claw, 5.

Colors of all --- Bill yellowish at base especially below - shading into dusky olive brown - with maxilla blackish towards tip - iris hazel. Tarsi, feet & claws fleshy brown.

✓3677. *Salpinctes obsoletus*. ♂ ad.  
149: 233: 75: 55: cul., 19: nostr., 13:  
gape, 14: tars., 21: mte., 17: claw, 4.

✓3678. *Lanius ludovicianus excubitorides*. ad.  
235: 330: 103: 112: cul., 18: gape, 25:  
tarsus, 28: mte 24: cl., 7.

✓3679. *Colaptes auratus mexicanus* ♂ ad. no red on nape.  
333: 540: 167: 124: cul., 39: gape 42:  
tars., 33: mte. 35: claw 11.5.

✓3680. *Sayornis sayi*. ♀ ad.  
203: 346: 112: 92: nostr., 12: gape, 23: tars., 22:  
mte., 17: claw 5:

✓3681. *Myiadestes townsendi* ♂ ad.  
224: 353: 120: 109: ~~118~~ nostr., 7: gape, 18:  
tars., 21: mte., 22: claw, 6.

✓3682. *Calamospiza bicolor* ♂ ad.  
178: 287: 90: 74: cul., 14: gape 15:  
tars., 24: mte., 22: claw, 5.

✓3683. *Calamospiza bicolor*. ♀ ad.  
176: 278: (85): 72: cul., 13: gape, 13:  
tars., 24: mte., 21: claw, 5.

3684. *Anas boschas* ♀ ad. Weight 2 lbs 1 1/2 oz.  
540: 890: 268: 100: cul., 53: nostr., 39: occiput  
from front of feathers, 58: bill, breadth below nostril, 21:  
gape, 63: bare tibia, 13: tars., 43: mte., 61:  
claw, 8. Tip hazel, terminal area of bill  
with yellow with the nail black - irregularly  
marked with yellow at base and around  
nostril - the central ~~part~~ <sup>area</sup> blackish -  
mandible ~~tipped~~ yellow & slightly spotted  
& tipped with black - tarsi & feet orange  
yellow, webs dusky, claws blackish.

✓3685. *Bubo virginianus subarcticus* ♀ ad.  
520: 1325: 390: 210: cul. + cere, 40:  
cere, 18: <sup>cul.</sup> 28: gape, 44: tars., 58: mte., 68:  
cl., 28: hallux-claw, 21: inner cl., 29:  
outer cl., 24. Stomach contained only hair & bones of small rodents.

✓3686. *Bubo virginianus subarcticus*. ♂ ad. Jan. 4<sup>th</sup>.  
495: 1240: 360: 210: cul., + cere, 36:  
cul., (24): cere, 15: gape 42: tars., 55:  
mte., 60: claw, 25: claw of hallux, 22:  
inner claw, 27: outer cl., 23, Ft. Verde, A. T.

✓3687. *Bubo virginianus subarcticus*. ♀ ad. Jan. 4<sup>th</sup>.  
This specimen and No. 3686, were a mated pair  
and were both shot at one shot as they  
sat side by side in a cottonwood.  
533: 1335: 388: 230: cul + cere, 31:  
cere, 18: cul., 30: gape 46: tars., 58:  
mte., 70: claw, 29: claw of hallux, 25:  
inner claw, 31: outer cl., 26. Stomachs empty.



January 6<sup>th</sup>, 1885

To-day a couple of hunters came in with two buros packed with deer.

Two bucks weighed, 94 and 106 lbs.

Two does weighed 59 and 64 lbs.

All were dressed, with the head cut off.

A buck was weighed at the store a few weeks ago which weighed with head on, 188 lbs., emaciated. The neck was swollen and its flesh strong, but tender & juicy. We used a little of it but soon tired of it on account of the ranky strong flavor indicating that the buck was rutting.

No. 161. *Cervus macrotis*. ♂ ad. Weight 106 lbs, dressed with head cut off. Tail & caudal vertebrae only, preserved. Length to end of hairs, 330; vertebrae 190.

\*3688. *Onychomys gambeli intermedius*. ♂ ad. 182: 262: 83: 84: cul., 11.5: gape, 12.5: tars., 23.5: mte., 22.5: claw, 6.

\*3689 *Onychomys gambeli intermedius*. ♀ juv. 166: 243: 77: 74: cul., 11: gape, 12: tars., 21.5: mte., 21: claw, 5.5.

3690. *Mareca americana* ♂ ad.

520: 825: 265: 125: cul., 38: from nostril, 27: breadth of bill below nostrils, 15: gape 44: bare tibia, 14: tars., 41: mte., 52: claw 8.

3691. *Regulus calendula* ♂ ad.

112: 179: 60: 48: crown, 6: gape 13: tars., 21: mte., 14: claw, 4.

January 8<sup>th</sup>, 1885

No. 162. *Cervus macrotis*, Say. White Deer. The four legs and hoofs preserved. A doe weighing, when dressed with head off 64 lbs. The gland on hind leg 127 mm in length.

No. 163. *Lepus callotis texianus*. ♀ ad.

From tip of nose to end of outstretched hind-leg, 810; to eye, 60; ear, 92; tip of ear, 28; occiput, 118. Length of head and body, 497. Tail from root to end of vertebrae, 95; hairs, 143. Height above crown, 169; greatest breadth, 80. Length of manus, 71; fingers, 148. Length of fore-leg, 196; hind leg, 250. Between eyes, 44. Chest girth, 290. Longest whiskers, 115. Longest fore claws, 13. Longest hind claws, 14. Total length, 640.

No. 164. *Lepus sylvaticus arizonae*. ♂ ad. Shot by Mrs. Mearns.

From tip of nose to end of outstretched hind-leg, 510; to eye, 44; ear, 63; tip of ear, 16.3. Tail from root to end of vertebrae, 53; of hairs, 75. Length of head and body, 330.

Total length, 405. Ears, height above skull, 86; greatest breadth, 49. Length of manus, 48; fingers, 93. Length of fore-leg 111 of hind leg, 172. Between eyes, 32. Chest girth, 200. Longest whiskers, 87. Longest fore-claws, 8. Longest hind-claws, 9.

3691.  
3741  
(See p. 320)

\**Lanius ludovicianus excubitorides* ♀ ad. Shot by Mrs. E. A. Mearns. Irides, dark hazel. Bill, black. Plumbeous on basal two-thirds of lower mandible. Tarsi, feet and claws, black.

235: 323: 101: 107: cul., 16: most, 12: gape, 25: tarsus, 29: mte., 24: cl., 7.5.

3692. *Lophortyx gambeli*. ♂ ad. 290: 375: 115: 113: cul., 11: most, 8: gape, 13: tars., 34: mte., 39: cl., 10.

January 9<sup>th</sup>, 1885

3693. *Lophortyx gambeli*. ♂ ad. Found dead. 287: 375: 115: 108: cul., 11: gape, 12.5: most, 8. Tarsus 33; mte., 38; cl., 10. Iris, hazel. Bill, black. Tarsi & toes plumbeous. Maxilla & mandible edged with brown: claws, blackish. Had been shot clear through in several places with No. 8 shot.

Canis macrotis, Say. Mule Deer. —

Some days ago a woodchopper asked me to go up to his camp in a cañon in the woods just north of Copper Cañon and shoot a large buck. I said I would go the next day; but I was obliged to go to the river, and I postponed the hunt till this afternoon. An Indian hunter brought it me to the cañon where I met a hunter backing out two large bucks which he had shot, told me with two deer yesterday afternoon. My woodchopper had gone with him, and they corralled a herd of Mule Deer in a cañon and got no less than fifteen shots, killing four before they could escape.

The hunter said that two bucks had been seen in a little cañon to the left. I spent the afternoon in hunting for them but saw no signs even when I got above snow level; but birds were abundant and the following named species were noticed.

Oreoscoptes montanus. — Singing  
Sialia mexicana.

Myiadictes townsendi. — Quite numerous in the cañons. They have a loud, startling whistle and were singing exultantly.

Lophophanes inornatus. Abundant.

Salpinctes obsoletus.

Aphelocoma woodhousei. — Abundant.

Zonotrichia gambeli intermedia.

Pipilo fuscus mesoleucus. Several seen.

Pipilo maculatus megalonyx. A few.

Zonotrichia gambeli. In large flocks.

Geococcyx californianus. One at base of foothills.

Mammals: — I saw one Sula chipmunk (Tamias striatus torridus) which I missed. I could easily have secured the specimen if I had taken a shotgun. It is the first I have ever seen here. Two more. One-tailed Squirrel (Sciurus harrisi) and Sciurus arizonae.

Jan. 10<sup>th</sup>, 1885

3694. Buteo borealis calurus ♀ ad. Mrs. Mearns picked it up dead near the bank of the Verde River, it having been shot with rifle bullet through foot of ~~leg~~ tibia, at junction with tarsus. It was extremely emaciated but had died very recently. Stomach empty. 580: 1400: 435: 245: cul., + cere, 38: cere, 15: cul., 28: gape, 47: tars., 98: mte., 70: claw, 26.

3695. Harporhynchus crissalis. ♀ ad. Shot by Mrs. E. A. Mearns. Iris, raw number. Bill black, feet & claws black, tarsi brownish black. — 310: 330: 102: 145: cul., 36: nost., 30: gape, 42: tars., 34: mte., 30: cl., 7.

3696. Lophortyx gambeli. ♂ ad. 270: 363: 111: 106: cul., 11: nost., 8: gape, 13: tars., length of plume, 40: plume of feathers, 32: mte., 37: claw, 9. Iris dark hazel, bill jet black-tarsus & toes brownish gray-claws blackish.

3697. Zonotrichia gambeli intermedia ♂ ad. 170: 255: 82: 80: cul., 10.5: gape, 12: tars., 24: mte., 23: claw 6. Iris hazel, bill brownish yellow very slightly tipped with black on both mandibles. Tarsi pale brown-feet dark brown-claw blackish.

Note. — Lophophanes wollweberi. Bridled Titmouse. On Jan 1<sup>st</sup> I saw and heard what I thought was a Mountain Chickadee (Parus montanus). It flew away before I could see it distinctly. Two days later (Jan. 3<sup>rd</sup>, 1885) I saw it again in the same place, on the creek near the 3-storied cliff dwelling. I saw it distinctly and it was of this species — the first I ever saw. I was unable to get a fair shot at it except when too close, and so it escaped.



January 11<sup>th</sup> 1885.

3698. *Anas boschas*. ♂ ad. Weight 2 lbs. 8 oz. + 1/2 dr.  
 645: 1010: 294: 112: cul., 61: nost., 116: gape 71:  
 breadth of bill below nostril, 24: height at  
 base, 23: bare tibia, 14: tars., 48: Mtc., 72:  
 cl., 12: Iris hazel, bill greenish yellow,  
 shading to dusky olive near tip of maxilla  
 nail on maxilla, black - mandibles yellowish,  
 rest of bill with black, nail at tip blackish.  
 Legs + feet bright orange including webs.  
 Claws, corn color at base - shading to  
 black at tips.

3699. *Anas boschas*. ♀ ad. Weight 2 lbs., Avon.  
 552: 915: 265: 112: cul., 54: nost., 41:  
 gape, 64: breadth of bill below nostril, 22:  
 height of bill at base, 23: bare tibia, 13:  
 tars., 46: Mtc., 65: cl., 10.

3700. *Sphyrapicus thyroideus* ♀ ad.  
 240: 425: 140: 100: cul., 26.5: gape, 28.5:  
 tars., 21: Mtc., 23: cl., 9. Bill blue  
 black - iris hazel; tarsi + toes plumbeous  
 claws plumbeous black. Shot in an isolated  
 piñon tree. Oak Creek. January 14<sup>th</sup> 1885.

3701. *Hylocichla unalascæ audubonii*. ♂ ad.  
 Oak Creek, A.T. Jan. 15<sup>th</sup> 1885.  
 183: 285: 93: 75: cul., 9: gape, 19: tars., 31:  
 Mtc., 23: cl., 6. Iris hazel, bill brownish  
 black with basal half of mandible yellow;  
 tarsi brown - feet + claws dusky brown  
 January 22<sup>nd</sup> 1885.

3730. *Melospiza fasciata* (Shot by Mrs. Q. M.) ♀ ad.  
 Verde River, A.T. 155: 289: 67: 66: cul., 12.5: gape, 13:  
 tars., 21.5: Mtc., 20: cl., 5: breadth of bill at base, 6: height, 6.

3731. *Merqure (Lophodytes) cucullatus*. ♂ ad.  
 Beaver Creek, A.T. 465: 647: 188: 104: cul., 39:  
 nost., 27: height of bill at base, 12: width at base, 12:  
 gape, 49: bare tibia, 8: tars., 31: Mtc., 55: claw 6.5.  
 Iris bright orange, bill blackish indistinctly with obsolete with reddish  
 nothing below, tarsi grayish brown, toes yellowish brown - claws blackish - claws brownish.  
 (See page 315)

Notes on a Hunting Trip From Fort  
 Verde to Indian Garden on Oak Creek,  
 Arizona Territory, between January 14<sup>th</sup>  
 and 18<sup>th</sup>, inclusive, 1885.

The party consisted, besides myself, of  
 1<sup>st</sup> Lieut. F. L. Carrington, and two <sup>private</sup> Fox and  
 Smith, of "E" Co., 1<sup>st</sup> Infantry, U. S. A.

We left Fort Verde at sunrise, January 14<sup>th</sup>,  
 and marched to Thompson's Rancho on Oak  
 Creek, in the Red Rock Country, 25 miles.

For the first five or six miles the trail lay  
 across a sandy region of mesquite-covered  
 plain and low hills bare of trees, between  
 Beaver Creek and the Rio Verde. We then  
 crossed a series of cedar-chin ridges in  
 which deer are often seen, and thence  
 descended to a wide, grassy prairie bordered  
 by low foothills with cedar upon their slopes.  
 There we found plenty of Antelope tracks, but  
 saw none until, on cautiously peering over  
 the first ridge after leaving the prairie, I saw  
 a herd of them feeding among some cedar  
 oaks bushes about 200 yards distant. I was  
 riding ahead with only a shotgun, and, the  
 country being open did not try to stalk them,  
 but waited for the buckboard to come up with  
 the rifles. I motioned to the driver to stop, and  
 immediately three rifles were brought to the top  
 of the hill, but not until the wary animals had  
 sniffed the breeze and belated themselves to their  
 heads. Smith could not be restrained from  
 letting fly at them at 300 yards, as they  
 trooped off in single file. Otherwise we might  
 have stalked them as the country ahead was  
 hilly and afforded cover. I gave Fox my  
 horse, and took a seat in the buckboard,  
 directing him to take his time, and look for the  
 Antelope behind the high ridge over which they

had disappeared, after winding in zigzags to avoid some buttes and cañons, at last pausing to look at our party from some eminence. There were fourteen in the band, and they were the only Antelopes seen on the trip.

We then crossed some level, and hilly country, over which a large number of horses and cattle were ranging, and came to the lion-crowned hillsides bordering Beaver Head, a respectable-sized stream of clear, running water, bordered with fine sycamores, alders and box-alders, besides a beautiful species of conifer, which both Mrs. Means and myself failed to identify even <sup>(*cupressus arizonensis*)</sup> generally. The foliage ~~etc~~ closely resembles that of *Juniperus*. It is glaucous, especially beneath, the branchlets terete, and the bark deciduous, shed in strips like the sycamore (*Platanus occidentalis*), and leaving the trunk smooth and glossy, of a reddish color like manzanita. The cones have from six to eight scales, and contain winged seeds. They are about an inch in length, ovoid in shape, green with a glaucous bloom becoming brownish-red when mature, and adhering in large blackish clusters to the branches after the seeds have been shed. The tree is restricted to ravines and cañons, frequently growing near small streams, upon damp hillsides. It became more abundant as we entered the Red Rock Country, through which it extends as far as Indian Garden, beyond which we did not go. Along Oak Creek it covers considerable areas, in some places to the exclusion of other trees. The young trees form dense brakes in some places, which are impenetrable except along the arroyos and water-courses. The largest

tree seen was about six feet in circumference and sixty feet high. I also saw large groves of these trees on the hillsides along Pine and Fossil creeks 20 to 30 miles east of Fort Verde.

Leaving Beaver Head we came into full view of the handsome Red Rock buttes and bluffs, which are of a brilliant red, varied with cream-colored strata. Guarding the entrance to the valley of Oak Creek stands a gigantic pyramidal pinnacle of red sandstone, broad and circular at base, receding by a series of rounded terraces to a slender, needle-like point projected hundreds of feet <sup>skyward</sup> upward. To the right of this butte is an enormous, rectangular, also isolated, mass of bright red sandstone rock, with facings of white, giving it very much the appearance of some of the mammoth brick structures in New York City - for instance the new 7th Regiment Armory. On either side of these, are lines of broken cliffs of similar structure, and grander proportions which are conspicuous from Fort Verde when bathed in the afternoon sunshine. They are variously ornamented with turrets, towers, Russian domes, Gothic arches and pillars, and the endlessly varying designs of Nature's Architecture.

We saw some large flocks of Gambel's Quails, and, while <sup>we were</sup> shooting some of them for supper, Fox came up with us, having failed to shoot an Antelope. He had found the herd twice, but, each time, they discovered him first, and betook them to flight, disappearing immediately from view behind the hills upon which they had been watching. He saw two Mule Deer, a species very common throughout that locality, as we learned from



a man who had been hunting them successfully. We passed the portal and, silent sentry, and found ourselves in the Red Rock Country. Not only are the rocks bright red, but even the soil was equally brilliant. The valley was broken by an interminable series of little hills, wooded in most places with pines, cedars and scrub oaks. We soon saw the fringe of deciduous trees bordering Oak Creek, and, as we came out upon the hilltop above the ranch, a splendid grove of tall live oaks, beautiful in their <sup>winter verdure</sup> greenness, was seen beneath us, extending for some distance parallel with the stream.

As we were pitching our little "A" tent, I saw and picked up the skull of a large Bear, which had recently been killed in Indian Garden, six miles further up the creek.

Lieut. Carrington and myself then started out with rod and gun, respectively, in quest of sport, and expecting trout for supper.

I followed the creek, which is a clear, cold mountain stream having its source in San Francisco Mountain about fourteen (14) miles from Flagstaff. It is cold all through the year, and contains trout of delicious flavor, some of which attain to nine pounds weight. It is a tributary of the Verde River, which it enters about six or seven miles north of the Post. As I descended the stream for a mile and a half, I found it bordered with alders as fine and large as beech-trees, and large sycamores and other deciduous trees. There were a few large yellow pines, and the evergreen referred to at length above. The hillsides were densely covered with scrub oaks of two species, both evergreen, and one of them producing holly-like, glossy leaves with bristly long

sharp spines upon their undersides. A slender, spreading and strongly maggoty growth plentiful among the scrub. Grapes grow luxuriantly in the somewhat alluvial bed of the stream. I saw no game save a pair of Golden-eye Ducks — beautiful old males!

The trout refused to bite for Mr. Carrington, and I, likewise, was obliged to return to camp without game, excepting a cotton-tail rabbit, upon which we breakfasted next day and one Lambert's Quail which came to life when I threw it down beside our camp-fire and whurred out of sight in the bushes, turning at much to my astonishment and my companions' merriment.

After dining on Lambert's quails and commissaries we retired for the night. To-day the following named animals were seen:

- Mammals —
1. Canis latrans. Prairie Wolf; Coyote. Abundant.
  2. Ursus americanus. Black Bear. The skull secured to-day is the only bear sign we saw on the trip. The ranchmen said that they never saw them during winter, although the species is not uncommon during the rest of the year. One man told me that they do not hibernate in caves or holes, but sleep on ledges or benches of the cliffs in the most inaccessible situations. He had never seen them thus asleep himself, but had seen several of their homes or nests which were excavated to a little depth. Private Fox had seen plenty of Bear's tracks in Indian Garden on a previous visit in summer.
  3. Sciurus grammurus. Rocky Mountain Pine-tailed Squirrel. One seen on a rocky bank beside Beaver Head. This species, like Tamias harrisi only comes out during the warm part of the day during winter, and at least partially hibernates in severe spells of weather.

4. Peromyscus talpoides umbrinus. Southern  
Pocket Squirrel. Signs abundant.

5. Neotoma "Trade-Rat"  
Their chip houses were built in bushes  
and cacti all along the route.

6. Lepus sylvaticus arizonae. Desert Hare.  
The one shot on Oak Creek is indistinguishable  
from those from the Verde Valley, which  
are distinctly of this variety (i.e. arizonae).

7. Lepus callosus texianus. Northern Pack-Rat  
Hare. Very abundant on Oak Creek.

8. Canis macrotis. Mule Deer. Fox saw  
two. The species is here abundant.

9. Antilocapra americana. Long-Horn Antelope.  
One herd of 14 seen. The species is common  
in this general region in suitable places.

#### Birds. -

1. Sialia mexicana. Californian Bluebird.

2. Myiadestes townsendi. Townsend's Solitaire.

A few were seen among cedars upon  
hillsides, usually perching erect like a  
Flycatcher upon a dry branch, and  
softly whistling from time to time.

3. Regulus calendula. Ruby-crowned Kinglet.

Abundant everywhere in wooded places.

4. Catherpes mexicanus conspersus. Canyon Wren's

White-throated Wren. As I walked down  
Oak Creek, carefully scrutinizing every  
water-fall and ripple in the turbulent  
stream in the hope of discerning the form  
of the American Water Ouzel (Cinclus mexicanus),  
I heard a note which I supposed came from  
that bird. It resembled the sound produced  
by dropping some object rapidly over the teeth  
of a comb. Soon I saw the performer  
however, and it was this little Wren,  
hopping among the driftwood beside  
the brook. Both this species and the  
Canyon Rock Wren (Salpinctes obsoletus) were

common for the immediate vicinity  
of water during winter.

5. Lanius ludovicianus excubitorius. White-rumped  
Shrike. A few seen on route.

6. Carolinus frontalis. House Finch. Com-  
mon on the Verde and Beaver Creeks.

7. Zonotrichia gambeli intermedius. Inter-  
mediate White-crowned Sparrow. In bushes  
near Ft. Verde.

8. Junco Abundant.

9. Pipilo maculatus megalonyx. Long-shafted  
Towhee. None seen until we reached  
Oak Creek, where a number were  
seen among the cedars and scrub oaks.

10. Pipilo aberti. Abert's Towhee. At the  
crossing and on the lower part of Beaver Cr.

11. Agelaius phoeniceus. Red-and-buff-shaft-  
-tailed Quailbird. One or two seen  
were seen in the woods at Fort Verde.

12. Geococcyx mexicanus cyanocinctus. Desert  
Quailbird. About the crosses.

13. Lynniocitta cyanocephala. Maximilian's  
Waterfletcher. In flocks in the Red Rock.

14. Lynniocitta stelleri macrolopha. Long-  
crested Wren. One seen in the Red Rock.

15. Aphelocoma woodhousei. Abundant  
wherever there were cedars and scrub oaks.

16. Sphyrapicus taproideus. Black-breasted  
Woodpecker. One was seen to alight  
in an isolated pinon tree at the entrance  
to the Red Rock Country, where I shot it.  
Its note is distinctive; but as this was  
only the third specimen I have ever  
met with, and the first female, I was  
too much interested in its capture to  
retain in memory its note, which strikes  
me as being singular.

17. Colaptes auratus mexicanus. Red-shafted  
Flicker. There were usually a few  
wherever there was any timber at all.



18. *Buteo virginianus subarcticus*. Western Horned Owl. (Hooting at night on Oak Creek.)
19. *Buteo borealis calurus*. Western Red-tail.
20. *Aquila chrysaetus canadensis*. American Golden Eagle. A pair of these splendid birds were sailing about the cliffs at the entrance to the Red Rock country.
21. *Lanius borealis*. Mourning Dove. On the bank of Verde River & Beaver Creek.
22. *Lophortyx gambeli*. Gambel's Quail.
23. *Ardea herodias*. Great Blue Heron. One standing in the Verde near the crossing, did not fly at all, and could have been shot from the overboard. They have been excessively shy; and I think that this must have been an early migrant that had not learned caution.
24. *Clangula glaucum americana*. American Golden-eyed Duck. Two on Oak Creek.

January 15<sup>th</sup> 1885. - Smith stayed in camp to look and look after the things, and the rest of us started out to hunt for Turkeys and Deer. I followed the stream towards the settlements, about ten miles, and covered a good deal of intermediate country besides. I was not long in finding plenty of turkey-tracks in the sand beside Oak Creek and this led me to keep near the stream; but I subsequently learned that they very seldom visit the stream during the middle of the day, but keep in the scrub and cedars on the hills. The tracks were chiefly those of hens and young gobblers; but occasionally the large tracks at a good distance apart showed where some old gobbler had trod. I had never seen a Turkey roost; but Fox had directed me to look for the droppings beneath large dry trees with horizontal arms. I found one roost, and

Fox afterward discovered it also. One new bird was found, and several interesting and valuable specimens were procured. As I returned towards camp about sundown I met Fox and Lieut. Carrington, mounted upon mules going to shoot at the Turkey roost which I had found and which Fox had subsequently discovered also. Fox offered to let me ride his mule, and, as I was very much fatigued by an all-day's walk, I gladly accepted. We returned late in the evening with three Turkeys, one of which, the largest gobbler, I shot myself. The following-named animals were seen:

- Mammals. -
1. *Felis concolor*. "Mountain Lion". I found the greater part of a skull which had been killed recently, as the dura mater was still intact and many hairs were sticking to it. It was picked up in an almost inaccessible spot, in a cañon on Oak Creek. No tracks were seen.
  2. *Canis latrans*. Coyote; Prairie Wolf.
  3. *Procyon hernandezii*. Black-footed Raccoon. Tracks were numerous on Oak Creek.
  4. *Neotoma*. "Wood Rat."
  5. *Thomomys talpoides umbrinus*. Southern Pocket Gopher. Signs about the ranches.
  6. *Lepus sylvaticus arizonae*. Desert Hare.
  7. *Lepus callotis texianus*. Northern Jackass Hare. Abundant. One shot by me.
  8. *Lepus macrotis*. Mule Deer. Tracks numerous.

Birds. -

1. *Keylocichla inlaskhai audubonii*. Rocky Mountain Hermit Thrush. One was seen beside Oak Creek, and the specimen secured.
2. *Sialia mexicana*. Californian Bluebird.
3. *Mniotilta townsendi*. Townsend's Solitaire. A number were seen, usually in pairs.

- I shot one but could not find it. Their note was a low, short whistle, which at times is loud and startling. They are very shy.
4. Regulus calendula. Ruby-crowned Kinglet. Very abundant. I have never heard it singing in Arizona.
5. Lophophanes inornatus. Plain Titmouse. A few among the cedars.
6. Lophophanes wollweberi. Dridled Titmouse. A few yards from camp brought me into the midst of a flock of these elegant little birds. Their acquaintance I had first made a fortnight ago on Beaver Creek near the largest ruined pueblo or cave dwelling; but only one was distinctly seen, and I was unable to procure a specimen. So it was with much pleasure that I watched their movement along the creek, for flocks were encountered every now and then in the bushes and deciduous trees in the creek bottom all the way down to the settlement and back again. Their notes are very like the winter notes of the Eastern Chickadee (Parus atricapillus), and their habits are similar too. They are often seen upside down clinging to a cluster of dry leaves hunting for insects. Its action is brightly and vivacious, and it is gentle and unassuming. I easily secured six specimens and might easily have taken many more. I shot one that was gleaning in a bunch of leaves which contained a web of some insect. When I fired the shot cut off the branch and the bird's feet became entangled in the web, and it was carried to the ground along with the falling branch, when I released it.
7. Geothlypis mexicana conspersus. White-throated Wren; Leconte Wren. It was found again beside Oak Creek, where I shot a specimen in the driftwood on the bank.

8. Junco long  
abundant every where.
9. Junco dorsalis. Red-backed Junco. The only individual seen on the trip was shot beside Oak Creek, where it had doubtless lingered since the severe cold and snow of a few weeks ago, which probably drove these beautiful and hairy thrushes down from the mountains.
10. Pipilo maculatus megalonyx. Long-spurred Towhee. Very abundant in the scrub oaks.
11. Lymnecitta cyanocephala. Maximilian's Nuthatch. In large flocks, feeding upon the berries of the cedars in which they alight in great numbers, but are too shy to be easily shot, although numbers could be killed at a shot if they could be approached when feeding.
12. Aphelocoma woodhousei. Woodhouse's Wren. Very abundant.
13. Geothlypis villosus harrisi. A few in the large trees bordering Oak Creek.
14. Sphyrapicus varius nuchalis. Red-naped Woodpecker. One or two seen on Oak Creek. Their note is indistinguishable from that of the Eastern Yellow-bellied Woodpecker (S. varius). It is harsh and hoarse. They were quite shy.
15. Colaptes auratus mexicanus. Red-shafted Flicker. Abundant, especially in deciduous timber beside the creek.
16. Bubo virginianus subarcticus. Western Horned Owl. Heard at night.
17. Accipiter fuscus. Sharp-shinned Hawk. An adult female shot.
18. Buteo borealis calurus. Western Red-tail.
19. Aquila chrysaetos canadensis. American Golden Eagle. One pair seen.



20. *Meleagris gallopavo*. Mexican Turkey.

During the day, Turkey tracks were seen in abundance, and a roost was discovered at the base of a high butte of ~~red~~ red rock, six miles from camp, in the creek bottom. The droppings were found beneath several large sycamores and <sup>were</sup> especially abundant under a tall, bare pine-tree close-by. We visited the roost at sundown and saw fresh tracks, made since we were there during the day, proving that the turkeys were somewhere in the vicinity. After cautiously examining the topography of the spot we withdrew to where we had left the mules and built a fire to keep us warm until the turkeys were settled for the night, and awaited the onslaught with impatience. We returned to the roost at dusk, and, as we approached, the first Turkey was seen upon the topmost branch of the dead pine; but it seemed to have taken to alarm or was not yet settled for the night. Its neck was stretched upward to its full length and it moved restlessly upon its perch. We sat down upon the bank of an arroyo and waited patiently for half an hour, until all were quiet upon the tree. Three could be seen from our position. Their heads were drawn down into the feathers and they were evidently sleeping. Then we cautiously advanced, but could not avoid making considerable noise among the dry brushwood thickly covering the ground; but the turkeys were not disturbed. We got nearly under them and then First Carrington whispered to me: "Dr., there's your big gobble sitting alone to the right. I will fire at those two together in the middle of the tree. Fox will take those on the left side: one! two! three! bang! bang! bang - bang rang out the shotguns.

Of the six turkeys sitting on the tree, four fell to our shots. My gobble fell perfectly dead, but two wounded birds were heard fluttering off through the bushes. I shouted "Come and catch the wounded birds. They're all gone," and First Carrington and myself dashed through the brushwood after the wounded turkeys. My escaping bird led me a chase through a tangle of grapevines, brushwood, gnarled bushes, over water courses, arroyos and stones. Every now and then I grabbed frantically at the tail of the prostrate Turkey as it fluttered through a bush, but it ever managed to elude my grasp, and finally escaped and could not be found. When I returned to the roost, I found that Mr. Carrington had met with better success and had captured his bird and found the two others; but had lost his gun in the pursuit. He could have shot an other Turkey, but could not find his gun. While pursuing the wounded one, I heard a number of turkeys fly overhead. They had been roosting on adjoining trees, and, had we been careful and looked for them, we could have shot many more. Even after I returned a Turkey flew from a tree right overhead. After a little search Fox found the missing gun and we gathered up the spoils, and made our way back to the mules and our fire. It was impracticable to follow the creek and our course lay through a steep, rocky cañon. We could not see the trail; but the mules picked their way along without difficulty. We looked down into the black depths of the cañon with dread, but were soon safely out of it and found the wagon-road which we followed home to camp, where we examined our game, and found that the two gobblers were immature, with spurs just developing.

although they weighed about twenty-five pounds apiece. The hen was also a good one. The fried pork, and beans, tasted <sup>very</sup> good, after fasting since morning; and we were glad to turn in to our blankets for the night.

21. Lophortyx gambeli. Gambel's Quail.  
Large flocks about camp. We shot as many as we cared for, to eat.

January 16<sup>th</sup>, 1885. I had intended to hunt for the hills and up the creek to-day; but learned that I could catch the wounded Turkey left near the roost that we fired into last night. So Smith and myself went down there the first thing. Smith took a rifle, intending to hunt Deer, and rode a mule; but I walked and carried my shotgun. We traced its course by scattered feathers among the bushes, and after much trouble and careful hunting in the close cover, Smith flushed the bird. It arose with a loud whirr, as if a whole flock of Ducks. I could not see it; but Smith marked it down among the scrub oaks upon a distant hillside, more than 300 yards distant. There Smith fired at it with his rifle. Then it flew once more, but immediately fell to my shot, but hobbled off under a bush and settled down upon the ground until we thought it was dead; but when Smith tried to catch it, away it flew 200 yards. Smith again missed it with his rifle; but I stole softly up and got a close shot that ended its existence.

Trapped my Turkey, an old hen, up carefully and gave it to Smith to carry, on the mule, and then followed Oak Creek back to camp, shooting small birds along the way.

I found Smith in camp when I returned.

He had shot nothing. Later in the afternoon Fox, who had ridden up to Indian Garden, to hunt up a Turkey-roost, returned without any game, but had seen two flocks of Turkeys and two of Massena Quails. After dining upon Quail and Rabbit, we once more unhitched our mules to the Turkey-roost, and went through the same preliminaries as last night; but not a Turkey returned to the spot. We returned to camp weary and disappointed.

To-day, I saw a few fir-trees (Abies). The following is a list of the animals seen today.

#### Mammals:—

1. Canis latrans. Coyote; Prairie Wolf.
2. Thomomys talpoides umbrinus. Southern Pocket Gopher.
3. Neotoma Wood Rat.
4. Lepus sylvaticus arizonae. Desert Hare.
5. Lepus callotis texianus. Northern Jackass Hare.

#### Birds:—

1. Phylloscopa unalaschkae audubonii. Rocky Mountain Hermit Thrush. One was seen on Oak Creek. It flew across the stream, where I could not conveniently get at it if shot; so I contented myself with watching it. A low "chuck" was the only note heard.
2. Sialia mexicana. Californian Bluebird.
3. Myiadestes townsendi. Townsend's Solitaire. One was again shot, but could not be found. They sang exquisitely, and flew about in pairs, very shy, keeping to the treetops and uttering a short whistle. They feed on cedar berries.
4. Regulus calendula. Ruby-crowned Kinglet. I have found this bird in company with leucorhynchus every day since we came here. It is fond of society, and the only other small species is Lophophanes, and they



- are too restless and active to suit the hunter.
5. Lophophanes inornatus. Plain Titmouse.
  6. Lophophanes wollweberi. Bridled Titmouse.
  7. Geothlypis trichas. White-throated Vireo. Beside the Creek as usual and on the red cliffs adjoining.
  8. Carpodacus frontalis. House Finch.
  9. Chrysomitris pinus. Pine Finch. A single one flew over our camp just after daylight.
  10. ? Junco hyemalis. Eastern Junco. Juncos were seen which I supposed were this species, but they were mixed with another species, and when I shot into them I only killed the others. The identification was, therefore, not positive.
  11. Junco. Very abundant.
  12. Amphispiza belli nevadensis. Sagebrush Sparrow. One shot.
  13. Melospiza fasciata. Song Sparrow.
  13. Pipilo maculatus megalonyx. Long-Spurred Towhee. Abundant.
  14. Gymnocitta cyanocephala. Maximilian's Nuthatch. Feeding in large flock upon the ground and in cedars.
  15. Cyanocitta stelleri macrolopha. Long-crested Jay. Several seen.
  16. Aphelocoma woodhousei. Woodhouse's Jay.
  17. Picus villosus harrisi. Harris's Woodpecker.
  18. Sphyrapicus varius nuchalis. Red-naped Woodpecker. Several seen in deciduous woods along Oak Creek, and in the grove of live oaks near camp they were abundant. One male was shot in which the red throat extended into the back chest patch, approaching slightly to var. ruber of the Pacific Coast.
  19. Colaptes auratus mexicanus. Red-shafted Flicker. Abundant.

20. Bubo virginianus subarcticus. Western Horned Owl.
21. Finnunculus sparverius. Sparrow Hawk.
22. Accipiter fuscus. Sharp-shinned Hawk.
23. Buteo borealis calurus. Western Red-tail.
24. Melagris gallopavo. Mexican Turkey. Fox saw two flocks up the Creek. One flock was feeding on corn in a crib in Indian Garden. The other was seen in the Creek bottom several miles this side.
25. Lophortyx gambeli. Gambel's Quail.
26. Leyrtonyx massena. Massena Quail. Fox saw a flock in a rocky cañon amongst the greasewood on the steep hillside. They were calling in their curious way, and did not fly at all. He did not fire at them as he had only a rifle. A second flock was seen up the Creek bottom.
27. Anas boschas. Mallard. Fox saw one in Indian Garden. Ducks have been seen flying upstream every day, but were not specifically identified.

January 17<sup>th</sup>, 1885. To-day, Fox and myself rode up to Indian Garden, following the trail. We hunted for Massena Quails, but saw none until we reached Indian Garden. The trail led over some steep and rocky hills commanding excellent views of the landscape which was beautiful. A few Deer tracks, and a Mountain Lion track were seen. Indian Garden is the cañon in which Oak Creek flows. Our trail for a little way ran parallel to it upon the hillside. The soil is richer than any other that I have seen in Arizona, and the vegetation is luxuriant. The groves of large live oaks were, to me, the greatest attraction. Deciduous trees of large size were numerous, while beneath the wood, the ground was densely

Antrozous pallidus.  
 No. 100. [Long-eared Bat. ♀ ad. Fort Verde, A.T. May 23, 1884.  
 Nose to eye, 8; ear, 16; occiput, 22;  
 root of tail, 64; Tail, 48; Ears, height, 32;  
 breadth, 23; Alar expanse, 34.5; Forearm, 51;  
 Phalanges, 8.3; Leg, 20; Foot, hind with cl. 12; cl. 2.5;  
 Alar toe and claw, 12; claw, 3; Height of  
 process of ear, 15; breadth at widest  
 part, 4. Flew into Post Hospital & killed by Steward.

Antrozous pallidus.  
 No. 101. Long-eared Bat. ♀ ad. Fort Verde, A.T. May 23, 1884.  
 Nose to eye, 8; ear, 16.5; occiput, 23; root of  
 tail, 65; Tail, 48; Ears, height, 30; breadth 24;  
 Height of process of ear, 16; greatest  
 breadth, 4; Alar expanse, 35.9; Forearm, 52;  
 Fore-foot, 8.9; Leg, 20.5; Hind-foot including  
 claw, 11; claw, 2.5; Length of alar toe and  
 its claw, 11; claw alone, 3.  
 Flew into our dining-room at night.]

overgrown with the rank herbage of last season. The stream was rapid and boisterous, but as before I looked in vain for the Mexican Water Ouzel (Cinclus mexicanus) which I fully expected to find. I still believe that the species must be present along parts of the stream, and hope for better fortune in hunting for them another time.

We left our horse and mule in the trail, and cautiously advanced toward the corn-crib, built of rails, which Fox had converted into a Turkey trap by making a hole in the side, low down and strewing corn through the opening and scattering it inside.

The Turkey, once inside never thinks of stooping and escaping through the low opening but runs about in excitement trying to escape. When we came upon the crib, nothing was seen but dozens of Long-crested Jays, which had eaten up all of the bait; and so

Turkeys were in the trap. Some bird of prey had eaten a Massena Quail upon the crib, where we found its scattered plumes, and immediately set out to hunt for them when we had satisfied ourselves that no Turkeys were near, which we did by calling with the hollow radius of a Turkey's wing. If any Turkeys are near, they will always answer the call. Fox was the first to find the Massena Quails. He found them drinking at a spring, and they instantly scattered in flight several flying towards me. I noticed that the sexes were plainly distinguishable when flying, even at a distance. They ran and flew a short distance alternately until well up on the steep hillside of sliding rocks covered with long grass and low scrub oaks, affording the very finest kind of cover. As I clambered up this difficult slope, one after another they flew up before me, always from right in front of me, uttering their singular notes, and generally taking me when badly balanced and unprepared. I got three shots and brought down two birds, a pair, but the male could not be found, as I failed to mark the spot when pressing forward after the rest. Fox was likewise unfortunate and failed to recover any of his birds.

The middle of the day was spent in exploring Indian Garden as far up as the junction of Little and Big Oak Creeks. A new bird, the Brown Creeper, was there seen but not secured, and many other species of interest were abundant. The vegetation is stronger than in any spot I have seen in Arizona. The Indians had gardens here before driven upon the Reservation, hence its present name.



Descending Oak Creek towards camp, we hunted carefully for Turkey geese but unsuccessfully. In one place I surprised Fox at what my horse, "Daisy", would do. In a canon across the stream were some dead trees, and as Turkey tracks were numerous, Fox thought they must roost there, as we had failed to find the roosting trees on the stream. The bank upon the opposite side was high and the water deep. I rode Daisy across in the shallowest place, threw down the bridle rein into the ice-cold water, and stepped up upon the high bank, leaving her standing in water up to her belly, while I hunted up the canon. When I returned, the horse had not moved, and allowed me to step upon her back from above. I put poor Daisy to this severe test with some misgivings, as a matter of necessity, and she did not fail me. No Turkeys or more Messena Quails were seen.

In the evening Fox rode down the Creek half a mile, and came into camp and reported that a large flock of Turkeys were going to roost there. We immediately set out. Lieutenant Carrington and myself rode upon Daisy, and Fox rode the mule. We floundered through the creek over the smooth boulders at two places, and then left the mule and horse behind. We only found three Turkeys. From their large size we knew them to be gobblers. They were perched singly upon three ~~very different~~ adjoining trees. Mr. Carrington capitulated and we each fired at a Turkey. My bird flew when I fired at it. The two others did not move until fired at a second time. My bird appeared to be hard hit; and we distinctly heard the sound of Carrington's gobbler upon the bank above us. After hunting for the Turkeys we returned, a crest-fallen tree to camp, after shooting into a couple of

last year's hawk's-nests which we supposed were Turkeys.

The following-named animals were seen:

Mammals.—

1. Felis concolor. "Mountain Lion". An old track was seen.
2. Canis latrans. Coyote; Prairie Wolf.
3. Canis lupus. White-backed Sheep.

A specimen of this animal was secured but could not be skinned on account of the vile odor; but its overcame my reluctance sufficiently to cut out its skull and preserve that alone. I found it on Fort Verde in October, and at one or two points between Fort Verde and Whipple's Barracks. It is common in the Verde Valley, Nevada; we read in Dr. Coues' memoirs of the Lepus (Antelope) captured in 1874, as follows: "Audubon and Bachman describe the animal from Texas. The only specimen Baird had seen in 1857 was also from this State (Luna Estuero), beyond which I am not aware that the animal has been actually observed north of the Mexican border. I obtained no evidence of its presence in New Mexico, Arizona, or Southern California during our residence in those regions, and the species may be confined, in the United States, to the valley of the Lower Rio Grande, like various other quadrupeds and birds.

4. Procyon hernandezii. Black-footed Raccoon. Track abundant everywhere along Oak Creek.
5. Spermophilus grammurus. "Rocky Mountain Pine-tailed Squirrel". One in Indian Garden near the Corn-crib, where it had been eating corn.
6. Castor fiber canadensis. American Beaver. A number of small saplings had been cut along the stream; but no large trees were seen which were cut by beavers.

7. Thomomys talpoides umbrinus. Southern Pocket Gopher.

8. Neotoma Wood Rat

9. Lepus sylvaticus arizonae. Desert Hare.

10. Lepus callosus texianus. Northern Jackass Hare.

### Birds:-

1. Myiarchus cinerascens audubonii. Rocky Mountain Hermit Thrush. One was seen at the junction of Little and Big Oak creeks. Another was seen in a tract of half-way towards camp, on the creek.

2. Myiarchus cinerascens. Townsend's Solitaire.

3. Regulus calendula. Ruby-crowned Kinglet.

4. Zophophanes inornatus. Plain Titmouse.

5. Zophophanes wollweberi. Bridled Titmouse.

6. Psaltiriparus plumbeus. Lead-colored Bush Titmouse. One flock near Oak Creek.

7. Sitta carolinensis aculeata. Slender-billed Nuthatch. Seen along the trail and common in Indian Garden.

8. Certhia familiaris (? mexicana). Brown Creeper. One was shot, but fell in the creek and could not be secured. I tried at another but did not kill it. These two were the only ones I have actually seen in Arizona; but I often thought I heard its prolonged whizzing note as I rode through the pine forests of the Mogollons last October; but the note of Parus montanus is so similar that I cannot be certain.

9. Catherpes mexicanus conspersus. White-throated Wren. Commonly seen and heard.

10. Dendroica audubonii. Audubon's Warbler. A few were seen in Indian Garden. The only ones seen on the trip.

11. Junco (? hyemalis). Eastern Junco. I thought I saw several with other Juncos but did not positively identify them.

12. Junco

13. Amphispiza belli nevadensis. Sagebrush Sparrow.

14. Melospiza fasciata Song Sparrow.

One seen in Indian Garden.

15. Pinilo maculatus megalonyx. Long-spurred Towhee

16. Gymnocitta cyanocephala. Maximilian's Tit. Viteraster; Pinon Jay.

17. Gymnocitta stelleri macrolopha. Long-Corsted Jay. Abundant in Indian Garden.

18. Sphecoecia woodhousei. Woodhouse's Jay.

19. Peris villosus harvii. Harrier's Woodpecker. In Indian Garden and other parts of Can Creek.

20. Peris varius nuchalis. Red-naped Woodpecker. Abundant in the live oaks of Indian Garden, where its jayish note was continually heard.

21. Colaptes auratus mexicanus. Red-shafted Flicker. Common, especially in Indian Garden.

22. Geococcyx californianus. Road-runner.

Some hillsides about a mile above camp are thickly strewn with malpais and closely covered with the flat pointed cacti - just the home sound of the Pisano, as the Mexicans call this bird. I fired at one from a hilltop. The shot scattered around it and, in its sudden fright it took itself to flight and whizzed away around the sloping hillside, alighted a hundred yards from the starting place and then ran swiftly out of sight. I have several times seen them fly thus.

23. Contia borealis calurus. Western Red-tail.

24. Melanerpes formicivorus. Mexican Turkey. See notes of to-day's adventures above.

25. Lophortyx gambeli. Gambel's Quail.

26. Leptotyx massena. Massena Quail. See notes above.

27. Uros boschas. Mourning Dove. One in Indian Garden.

28. Notioptila carolinensis. Green-winged Teal.

\* McLauria formicivora. Californian Woodpecker. Common in Indian Garden; the only one seen.



January 18<sup>th</sup>, 1885. To-day we returned, quite to my regret, to Fort Verde, where we arrived at 1:30 o'clock P.M. I hunted for two hours before starting, and rode Daisy all the way home on a steady trot.

Fox's knee was so painful from a mule's kick that he did not care to go with me down the creek to hunt for the wounded Turkeys, so I went alone, and reached the place just at daylight. Suddenly the gobbler began to gobble and frightened the horse, so that I could not get her across the stream to where the Turkeys were. They were just leaving their roosting place in the creek bottom and I could probably have ridden up and shot one of the gobblers had my horse behaved well. As it was ran to the edge of the stream where I heard some hens calling upon the bushy hillside on the opposite bank. The gobblers were in the level creek bottom below me and their loud gobbling came nearer and nearer, while the hens were seen occasionally just across the stream running through the scruboaks. They ran like Quails up the hillside to avoid a high rock, and stood for several minutes upon a point of rock. I was just going to shoot at several of them standing together, when I heard a gobbler close by coming up the stream, and as I had a hen, and was particularly anxious to have an old, spurred gobbler of my own shooting, I held my shot and waited for him to come up upon the opposite bank. One of the hens flew down the hillside to where the gobblers were calling and gobbling. The gobbler was now close to where I was hiding, but turned up the hillside among the dense brushwood, and escaped. I hunted for the

Jack and for the two wounded birds, but failed to find either of them; and so we were obliged to leave our camp with only four Turkeys. The Buckboard awaited me at the top of the hill, where I disappointed the rest of the party by appearing empty handed, and they fully expected that I would get one or two of the Turkeys shot at last night.

The following is a list of the animals seen:  
Mammals.

1. Thomomys talpoides umbrinus. Southern Pocket Gopher.

2. Neotoma

While hunting for H. E.'s Turkey I saw a large mound built in the center of a bunch of cacti in an oak bush. I jumped upon it and a rat ran out and skunked beneath the bushes. I saw it, and fired a charge of Turkey shot at it, but did not hit it.

3. Lepus sylvaticus arizonae. Desert Hare.

4. Lepus arizonae texianus. Northern Jackass Hare.

Birds.

1. Geothlypis trichas. Grilled Thrasher.

One was seen between the Red Rock mts and Beaver Creek, and the species was common along Beaver Creek and on Verde River.

2. Sialia mexicana. Californian Bluebird.

3. Sialia arctica. Rocky Mountain Bluebird.

Large flocks were seen.

4. Myiadestes townsendi. Townsend's Solitaire.

5. Regulus calendula. Ruby-crowned Kinglet.

6. Troglodytes aedon. Plain Titmouse.

7. Troglodytes aedon. Plain Titmouse.

Only on San Juan.

8. Catherpes mexicanus conspersus. White-throated Wren.

9. Lanius ludovicianus excubitorides. White-headed Shrike.

10. Corvus brachyrhynchos. House Crow.

11. Zonotrichia gambeli intermedia. Intermediate  
Crown-Sparrow.
12. Junco
13. Amphispiza belli nevadensis. Sagebrush Sparrow.
14. Pipilo maculatus megalonyx. Long-Spurred Towhee.
15. Pipilo aberti. Abert's Towhee. Lower Beaver Creek.
16. Sturnella neglecta. Western Meadow Lark.  
Common in grassy places all along from  
the Red Rock to Verde.
17. Scolecophagus cyanocephalus Brewster's Blackbird.  
At Fort Verde.
18. Gymnocitta cyanocephala. Maximilian's Nuthatch.
19. Cyanocitta stelleri macrolopha. Long-Crested  
Jay. In the Red Rock Country.
20. Aphelocoma woodhousei. Woodhouse's Jay.  
Wherever cedars and oaks grow.
21. Picus villosus harrisi. Harris's Woodpecker.
22. Sphyrapicus varius nuchalis. Red-naped  
Woodpecker. About camp on Oak Creek.
23. Colaptes auratus mexicanus. Red-shafted Flicker.
24. Geococcyx californianus. Road Runner.  
One seen on Beaver, near the Verde River.
25. Fimbriculus sparverius. Sparrow Hawk.
26. Accipiter fuscus. Sharp-shinned Hawk.
27. Buteo borealis calurus. Red-tailed Hawk.
28. Melanerpes gallopavo. Mexican Turkey.  
See above notes of to-day's doings.
29. Lophortyx gambeli. Gambel's Quail.
30. Anas boschas. Mallard. A large flock  
on Beaver Creek. Many other Ducks  
were flying over the Verde River which were  
not identified.

Note. No Reptiles or Batrachians were seen on the trip. A species of Unio was the only shell seen along Oak Creek. The Trout could not be induced to bite, but I saw several very large ones, and some small minnows were seen in one or two places. No ichthyological specimens were taken.

The following is a complete list of all the species of Birds seen on the trip, showing when they were noted:

Name of Species.	Jan. 14 <sup>th</sup> .	Jan. 15 <sup>th</sup> .	Jan. 16 <sup>th</sup> .	Jan. 17 <sup>th</sup> .	Jan. 18 <sup>th</sup> .
<u>Thylocichia unalutka audubonii</u> .		x	x	x	
<u>Harporhynchus crissalis</u> .					x
<u>Sialia mexicana</u> .	x	x	x		x
<u>Sialia arctica</u> .					x
<u>Myiadestes townsendi</u> .	x	x	x	x	x
<u>Regulus calendula</u> .	x	x	x	x	x
<u>Lophophanes inornatus</u> .		x	x	x	x
<u>Lophophanes wollweberi</u> .		x	x	x	x
<u>Saltriparus plumbeus</u> .				x	
<u>Litta carolinensis aculeata</u> .				x	
<u>Certhia familiaris</u> (! mexicana).				x	
<u>Cathartes mexicanus conspersus</u> .	x	x	x	x	x
<u>Dendroica audubonii</u> .				x	
<u>Lanius ludovicianus excubitorides</u> .	x				x
<u>Carpodacus frontalis</u> .	x		x		x
<u>Chrysomitris pinus</u> .			x		
<u>Zonotrichia gambeli intermedia</u> .	x				x
<u>Junco</u> (! <u>agelaius</u> ).			x	x	
<u>Junco</u> .	x	x	x	x	x
<u>Junco dorsalis</u> .		x			
<u>Amphispiza belli nevadensis</u> .			x	x	x
<u>Melospiza fasciata</u> .				x	
<u>Pipilo maculatus megalonyx</u> .	x	x	x	x	x
<u>Pipilo aberti</u> .	x				x
<u>Agelaius phoeniceus</u> .	x				
<u>Sturnella neglecta</u> .					x
<u>Scolecophagus cyanocephalus</u> .	x				x
<u>Gymnocitta cyanocephala</u> .	x	x	x	x	x
<u>Cyanocitta stelleri macrolopha</u> .	x		x	x	x
<u>Aphelocoma woodhousei</u> .	x	x	x	x	x
<u>Picus villosus harrisi</u> .		x	x	x	x
<u>Sphyrapicus varius nuchalis</u> .		x	x	x	x
<u>Sphyrapicus thyroideus</u> .	x				



## Name of Species.

	Jan. 14 <sup>th</sup>	Jan. 15 <sup>th</sup>	Jan. 16 <sup>th</sup>	Jan. 17 <sup>th</sup>	Jan. 18 <sup>th</sup>
<i>Melanerpes formicivorus</i> .				x	
<i>Colaptes auratus mexicanus</i> .	x	x	x	x	x
<i>Geococcyx californianus</i> .				x	x
<i>Buteo virginianus subarcticus</i> .	x	x	x		
<i>Spinunculus sparverius</i> .			x		x
<i>Accipiter fuscus</i> .		x	x		x
<i>Buteo borealis calurus</i> .	x	x	x	x	x
<i>Aquila chrysaetus canadensis</i> .	x	x			
<i>Zenaidura macroura</i> .	x				
<i>Miclagris gallopavo</i> .		x	x	x	x
<i>Lophortyx gambeli</i> .	x	x	x	x	x
<i>Cyrtonyx massena</i> .			x	x	
<i>Ardea herodias</i> .	x				
<i>Anas boschas</i> .			x	x	x
<i>Nettion carolinensis</i> .				x	
<i>Clangula glaucum americana</i> .	x				

The only Mammals collected were three skulls.

*Felis concolor*. Panther; Mountain Lion. Adult.

Oak Creek. Jan. 15<sup>th</sup>, 1885.

*Ursus americanus*. (Black Bear; Brown Bear. Adult.

Indian Garden. Oak Creek. Jan. 14<sup>th</sup>, 1885.

Skull (except lower jaw) and one cervical vertebra.

No. 239. *Lonchotus macrurus*. White-backed Skunk.

♂ ad. Indian Garden, Oak Creek, Arizona.

Skull and one claw. (fresh). Jan. 15<sup>th</sup>, 1885.

## Birds Collected:

Oak Creek, A.T., January 14<sup>th</sup>, 1885.

5700 *Dendroica auduboni*. ♀ ad.

240; 725; 140; 100; culmen, 26.5; gape, 28.5; tarsus, 21; middle toe and claw, 23; claw, 9.

Iris, hazel. Bill, blue-black. Tarsi and toes, plumbeous; claws, plumbeous-black.

3701. *Myiozetetes similis*. ♂ ad. Oak Creek, Jan. 15<sup>th</sup>, 1885.

183; 285; 93; 75; bill from nostril, 9; gape, 19; tarsus, 31; middle toe and claw, 23; claw, 6.

Iris, hazel. Bill, brownish-black, with

Oak Creek, A.T., Jan. 15<sup>th</sup>, 1885.

base of mandible, yellow. Tarsi, brown. Feet and claws, dusky-brown.

3702. *Cathartes mexicanus conspersus*. ♀ ad.

140; 187; 62; 55; culmen, 20; bill from nostril, 15; gape, 23; tarsus, 16.5; middle toe and claw, 17; claw, 4. Iris, hazel. Bill, with maxilla and tip of mandible, brown; residue of mandible flesh-color. Tarsi, flesh-brown. Feet and claws, dusky-brown.

3703. *Opusco hyemalis schufeldti*. ♂ ad.

(2<sup>nd</sup> tail-feather black on inner half.) 157; 240; 77; 70; culmen, 11; gape, 11; tarsus, 20; middle toe and claw, 19; claw, 5. Iris, hazel. Bill, rosy flesh-color, very slightly tipped with black. Tarsi, fleshy-brown. Feet, dark-brown; claws, brownish-black.

3704. *Opusco annae*. ♂ ad.

(Very similar in colors to the above species, but the sides of head and throat are purer and lighter. The two outer tail-feathers and greater part of the 3<sup>rd</sup> are white.) 166; 261; 87; 80; culmen, 11; gape, 11; tarsus, 21; middle toe and claw, 19; claw, 5. Colors of parts exactly like No. 3703.

3705. *Lophophanes wollweberi*. ♂ ad.

130; 204; 66; 58; culmen, 8.5; gape, 10; tarsus, 18; middle toe and claw, 15; claw, 5. Iris, hazel. Bill, dusky-plumbeous. Feet and claws, and tarsi, plumbeous.

3706. *Lophophanes wollweberi*. ♀ ad.

128; 207; 65; 61; culmen, 8; gape, 10; tarsus, 18; middle toe and claw, 15; claw, 4.3.

3707. *Lophophanes wollweberi*. ♂ ad.

157; 205; 65; 64; culmen, 8.5; gape, 10.5; tarsus, 17; middle toe and claw, 15; claw, 4.5.

3708. *Lophophanes wollweberi*. ♀ ad.

129; 204; 65; 62; culmen, 8.5; gape, 10; tarsus, 17; middle toe and claw, 15; claw, 5.

Colors of parts like No. 3705.

- Oak Creek, U. T. January 15<sup>th</sup>, 1885.
- 3709 *Lophophanes wollweberi*. ♀ ad.  
125; 195; 62; 60. Culmen, 8; gape, 9.5;  
tarsus, 18; middle toe and claw, 14.5; claw, 4.5.
3710. *Lophophanes wollweberi*. ♂ ad.  
130; 205; 67; 60. Culmen, 8.5; gape, 9.5;  
tarsus, 17.5; middle toe and claw, 14; claw, 5.
3711. *Junco dorsalis*. ♂ ad.  
167; 252; 80; 78; culmen, 11.5; gape, 13;  
tarsus, 21; middle toe and claw, 19; claw, 5.  
Irides, hazel. Bill, with maxilla brownish-black.  
Mandible, flesh-color; tarsi, light brown;  
feet, brown; claws, dusky-brown.
3712. *Symphoricarpa cyanocephala*. ♀ ad.  
277; 465; 150; 111; culmen, 31; bill measured  
from nostril, 20; gape, 33; tarsus, 39;  
middle toe and claw, 32; claw, 9. Irides,  
hazel. Bill, tarsi, feet and claws, black.
3713. *Accipiter fuscus*. ♀ ad.  
347; 647; 204; 172; culmen and cere, 20;  
cere, 9; culmen, 12; gape, 18.5; tarsus, 55;  
middle toe and claw, 46; claw, 11. Irides,  
orange. Cere, greenish. Bill, plumbeous-black;  
pale bluish at base. Tarsi and feet, lemon-yellow.  
Claws, plumbeous-black. Stomach empty.
3714. *Picus villosus harrisi*. ♀ ad.  
225; 384; 125; 88; culmen, 29; gape, 31;  
tarsus, 21; middle toe and claw 21; claw, 10.
3715. Oak Creek, U. T. January 16<sup>th</sup>, 1885.  
*Lophophanes wollweberi*. ♀ ad.  
128; 195; 65; 61; culmen, 9; gape, 10;  
tarsus, 18; middle toe and claw, 14; claw, 5.  
Iris, hazel. Bill, dusky-plumbeous. Tarsi, feet  
and claws, plumbeous.
3716. *Lophophanes wollweberi*. ♂ ad.  
131; 212; 69; 63; culmen, 8.5; gape, 10;  
tarsus, 18; middle toe and claw, 15;  
claw 4.5. Both shot in live oaks at camp.  
Colors the same as No. 3715.

3717. *Pipilo maculatus megalonyx*. ♂ ad.  
211; 270; 88; 102; culmen, 15; gape, 17; tarsus,  
28; middle toe and claw, 28; claw, 9. Irides,  
reddish-orange. Bill, brownish-black; tarsi, feet  
and claws, black brown.
3718. *Pipilo maculatus megalonyx*. ♂ ad.  
230; 282; 91; 116; culmen, 17; gape, 16;  
tarsus, 27; middle toe and claw, 31; claw, 11.  
Iris, bright orange. Other parts same color as  
No. 3717.
3719. *Cyanocitta stelleri macrolopha*. ♀ ad.  
307; 445; 141; 138; culmen, 28; bill, measured  
from nostril, 19.5; gape, 32; tarsus, 43; middle  
toe and claw, 32; claw, 8.
3720. *Melanerpes gallopavo*. ♀ ad. (Mexican Turkey.)  
Length to end of claws, 1010; 995; 1330; 426; 345;  
Culmen, 34; bill, measured from nostril, 24; gape,  
52; height of bill opposite to base of nostril, 18;  
width below nostrils, 18; width at gape, 23;  
tarsus, 138; middle toe and claw, 70; claw, 17.  
Bill, brownish black from base to end of nostrils;  
then purplish-red, shading to horn-color on both  
mandibles. Tarsi and toes, reddish-brown;  
the centre of tarsus edged with darker brown,  
while those of toes are terminally banded with  
blackish; claws, dusky-brown. Shot by  
Edgar A. Mearns.
3721. *Sphyrapicus varius nuchalis*. ♂ ad. Approaches  
var. *ruber* in that the red of throat extends  
well down into the black chest-band.  
221; 400; 130; 84; culmen, 24; gape, 27;  
tarsus, 21; middle toe and claw, 24; claw, 9.
3722. *Sphyrapicus varius nuchalis*. ♂ juv.  
219; 401; 130; 80; culmen, 23; gape, 25;  
tarsus, 20; middle toe and claw, 23; claw, 8.5.
3723. *Lophortyx gambeli*. ♂ ad.  
290; 366; 112; 109; length of plane, 48.  
No. of feathers in plane, 5. Culmen, 10.5;  
(over)



nostril, 8; gape, 12.5; tarsus, 33; middle toe and claw, 39; claw, 10.

Indian Land, Oak Creek, A.T. Jan. 17<sup>th</sup>, 1885.

3724. *Syrnium messense*. ♂ ad.

215; 425; 12; 63; culmen, 14.5; gape, 15; tarsus, 31; middle toe and claw, 36; claw, 14. Irides, bright hazel. Bill, with maxilla brownish, laterally, and at point; dusky above; lower mandible, pale blue; Tarsi and feet, plumbeous; Claws, uniformly horn-color.

3725. *Ceryle alcyon*. ♂ ad.

342; 465; 150; 144; culmen, 29; bill, measured from nostril, 20; gape, 32; tarsus, 44; middle toe and claw, 32; claw, 7. Irides dark hazel. Bill, black, very slightly tipped with horn-color on maxilla, and for a greater distance on median line of mandible. Tarsi, feet and claws, black.

3726. *Aphelocoma woodhousei*. ♂ ad.

300; 399; 126; 148; culmen, 27; gape, 32; tarsus, 42; middle toe and claw, 32; claw, 7. Irides, hazel. Bill, blue-black, slightly tipped with horn-color. Tarsi, feet and claws, black.

3727. *Aphelocoma woodhousei*. ♂ ad.

295; 392; 124; 140; culmen, 26; gape, 27; tarsus, 38; middle toe and claw, 34; claw, 7.5. Colors of parts the same as No. 3726.

3728. *Sphyrapicus varius nuchalis*. ♂ juv.

218; 343; 126; 84; culmen, 24.5; gape, 26.5; tarsus, 21; middle toe and claw, 23.5; claw, 9.

3729. *Nettion carolinensis*. ♂ ad.

377; 610; 187; 86; culmen, 36; nostril, 30; gape, 43; height of bill at base, 15; width below nostril, 13. Bare tibia, 11; tarsus, 33; middle toe and claw, 41; claw, 5.5. Irides, hazel. Bill, black, with brownish nail on tip of mandibles; mottled below on ramus of mandible with yellowish patches. Legs + toes, plumbeous; tarsi and claws, dusky.

January 22<sup>nd</sup>, 1885.

Mrs. Means and myself walked a couple of miles up the Verde. Among the birds seen were the following:

*Anthus ludovicianus*. American Lark. We watched one running about in shallow water often up to its body. It continually tilts its tail and its body slightly, and in climbing over the round stones projecting out of the water it would sometimes use its bill to draw itself up. One beside the Verde River. *Ardea herodias*. Four were seen together. *Aquila chrysaetos canadensis*. A pair seen.

January 24<sup>th</sup>, 1885.

*Ceryle alcyon*. One seen on the Verde.

*Mergus serrator*.

*Mergus mergamus americanus*. A fine adult male was seen.

*Colaptes auratus americanus*. Common.

*Fulix marila*. Common in large flocks.

*Spatula clypeata*. One shot: the first seen here.

*Mareca americana*. Abundant.

*Larus argentatus*. Several shot. The first seen.

*Anas boschas*. A flock of Mallards were found just at dark standing upon a little mud island, where I shot several, but only recovered one.

*Ardea herodias*. Common.

*Zenaidura macroura*.

*Sayornis sayi*. A pair about my quarters, and another at the Hospital.

Note. - On January 20<sup>th</sup> a "Cactus Deer" (*Ovis montanus*) was shot near the Post, and brought to me. The osseous pedicels for the horns were developed, but were entirely grown over by the skin and short hair. It is simply a mule deer.

No. 165. *Caracus macrotis*. ♂ ad. Jan. 20, 1885. Ft. Verde, A.T. One fore-leg, one hind-leg, skin of head + neck + skull, pedicels.

January 24<sup>th</sup>, 1885. Ft. Verde, A. T.  
 No. 166. *Tamias harrisi*. ♂ ad. Harris's Chickadee.  
 Total length, 350. Head and body, 153. Tip of nose  
 to eye, 18; ear, 32; meatus, 39; tip of ear, 45;  
 occiput, 47; end of outstretched hind leg, 242.  
 Tail, from root to end of vertebrae, 72. Hair, 97.  
 Length of manus, 25; pes, 40. Fore leg, 51.  
 Hind leg, 72. Height of ear from crown, 10.  
 meatus, 13; breadth, 12. Between eyes, 21.  
 Chest girth, 90. Between claws, across shoulders,  
 162. Longest fore-claw, 7; hind claw, 7.  
 Longest whiskers, 38. Pouch filled with mezquite seeds.

3732. *Dafila acuta*. ♂ ad.  
 695; 930; 272; tail to end middle feathers 185;  
 next feather, 135; culmen, 52; nostr., 42; gape, 64;  
 height at nostrils, 19; width at nostr., 18.5;  
 tarsus, 46; mte., 68; cl., 11; bare tibia, 17.  
 Iris, dark hazel. Bill, with a broad dorsal band  
 of black, with sides of maxilla blue, bordered  
 with black below for terminal 2/3 and with  
 a transverse patch of black at base separating  
 the blue on from the feathers, its base  
 below; entire mandible, black. Tarsi, feet  
 and claws, bluish-gray; webs, darker.

3733. *Spatula clypeata*. ♂ juv.  
 505; 800; 248; 97; cul., 71; from nostr., 51;  
 gape, 78; width at base, 14; opposite  
 nostrils, 18; greater width, 32; bare tibia 16;  
 tarsus, 40; mte., 54; cl., 9. Bill, orange.  
 Bill blackish, tinged with olive-brown; below,  
 the ramus of mandible are yellowish, brown, and  
 the nail at apex has a subterminal band  
 of brownish-red. Tarsi and feet, orange,  
 slightly tinged with gray; webs dusky-orange;  
 claws dusky-brown.

3734. *Mareca americana*. ♂ ad.  
 535; 900; 280; 140; cul., 37; nostr., 29; gape 48; width below nostrils, 18;  
 height at base of nostrils, 17.5; bare tibia, 13; tars., 40; mte., 54; cl., 9. Iris —  
 bill with maxilla squarely edged with black at base, forming a narrow black band, which  
 is succeeded by an area of pale blue—26 m. m. length, sharply divided by the jet black tip of bill which

sends two lateral horns backward, along lower edge for a  
 distance of 10 m. m. The maxilla, in short, is light  
 blue sharply banded at base + tip with jet  
 black; <sup>radial</sup> mandible jet black. Tarsi + toes brownish  
 gray; webs + claws black.

3735. *Dafila acuta*. ♀ ad.  
 555; 870; 245; 125; cul., 49; nostr., 38;  
 gape, 59; breadth below nostril, 18; height at base  
 of nostrils, 19; bare tibia, 13; tars., 41; mte., 58;  
 cl., 10; Iris hazel, bill plumbeous black, with  
 nail on lower mandible, indistinctly bordered  
 with reddish brown sub-terminally. Legs, feet  
 webs + claws, bluish gray—the webs +  
 claws somewhat darker.

January 27, 1885.

3736. *Nettion carolinensis*. ♀ ad.  
 360; 590; 176; 79; cul., 37; nostr., 28;  
 gape, 42; height of bill opposite base of nostril, 14;  
 width below nostrils, 14; bare tibia, 11; tars., 29;  
 mte., 43; claw, 8. Iris light brown, bill with  
 maxilla blackish mottled with purplish gray,  
 mandible with ramus of jaw grayish flesh color, becoming  
 blackish on distal third, bare tibia, tarsi + toes brownish  
 gray, webs + claws dusky.

3737. *Mergus merganser americanus*. ♂ ad.  
 660; 950; 273; 132; cul., 56; nostr., 36;  
 gape, 80; height of bill at base (folded feathers),  
 18; width at gape, 20; bare tibia, 12; tars., 49;  
 mte., 76; cl., 9. Bill with a broad dorsal stripe  
 of black, laterally bright red <sup>ramus of</sup> mandible below  
 bright red at base, mottled, with black patches  
 which become confluent—the mandible being jet  
 black at tip. Tarsi, toes and webs of feet,  
 both surfaces, uniformly bright orange red.  
 Claws horn color shaded with dusky plumbeous.

*Dendroica audubonii*. — Abundant near water.  
*Tringoides macularius*. A few have remained  
 all winter. One seen to-day.  
*Ardea herodias*. Common. It seems to be migrating.



January 28, 88. H. Verde, A.T.  
 3738. *Melospiza fasciata montana*. ♂ ad.

167: 231: 74: 78: cul, 12: gape, 12:  
 tars., 23.5: mte., 21.5: cl., 5. Iris hazel, bill  
 blackish above and on tip of mandible, laterally  
 and below fleshy plumbeous, tarsi, feet and  
 claws brown.

3739. *Regulus calendula*. ♂ ad. 11.5  
 110: 179: 59: 47: ~~cul~~ 5: gape, 12: tars., 19:  
 mte., 13: claw, 4.

*Geothlypis trichas*. Abundant all over  
 the Verde bottom, preferring mesquite thickets  
 and the vicinity of Steadys - Verde River  
 & its tributaries Beaver Creek and Clear Creek.  
*Merula migratoria propinqua*. - The first was  
 heard to-day.

*Sialia arctica*. On January 22<sup>nd</sup> I saw the  
 first (a single one) Arctic Bluebird here  
 in the Valley that I have seen this winter.  
*Sialia mexicana*. - A few along Beaver Creek.

They were feeding in small flocks upon  
 some seeds that grow upon tall, rank weeds.  
*Salpinctes obsoletus*. One upon our wood-pile.  
*Catherpes mexicanus conspersus*. - On cliffs  
 along Beaver Creek.

*Regulus calendula*. - The species has  
 been abundant here all winter. The spec-  
 imen above records (No. 3739) had so exactly  
 the appearance of a flycatcher that I shot  
 it, although its wing bands and small  
 size caused me to suspect that it was an  
*Empidonax*. It sat upon dry twigs  
 over the water and called out in drills  
 after insects.

*Atthis ludoviciana*. Common along streams.  
*Dendroica auduboni*. Abundant on Beaver Cr.  
*Myiadestes townsendi*. One on mesquites in  
 the Verde bottom.  
*Corpodacus frontalis*. Abundant; singing about

the hospital early in the mornings. On  
 Beaver Creek they live in large flocks.  
*Melospiza fasciata*. - Common  
 enough in suitable places along Beaver  
 Creek and the Verde River.

*Zonotrichia gambeli intermedia*. - Abundant  
 and singing. *Leucophris* has not been seen lately.  
 I doubt that it spends the winter here; but it  
 occurs in spring and fall.

*Eremophila alpestris*. - A few flocks.  
*Sturnella neglecta*. - One flock near the post.  
*Scolecophagus opanoe thalassus*. Its num-  
 -ber are increasing. I saw a few  
 Blackbirds on Beaver Creek which I think  
 were *Agelaius phoeniceus*, but am not positive.  
*Corvus corax*. A few. Scarce, but are  
 nearly every day.

*Pipilo aberti*. Abundant. Its loud alarm  
 note is now heard nearly every  
 day. Earlier in the winter it was rarely uttered.

*Sayornis sayi*. Abundant. I think they  
 are beginning to arrive from the south.  
*Sayornis nigricans*. A few along the stream.  
*Picus scalaris*. A few.

*Picus villosus naxos*. - One heard.  
*Colaptes auratus mexicanus*. - Common.

*Immeridus sparverius*.

*Accipiter fuscus*.

*Accipiter cooperi*.

*Buteo borealis calurus*.

*Ardea herodias*.

*Tringoides macularia*. } Several of each.

*Oxyechus vociferus*

*Anas boschas*. Large flocks.

*Aythya ferina americana*. - A few flocks.

*Actitis carolinensis*. - Flocks

*Marcan americana*. - Flocks. Abundant.

*Anser penicula canadensis*. - A number  
 seen along the Verde. variety not determined.

January 29<sup>th</sup>, 1885. Ft. Verde.  
 13740. *Picus scalaris*. Ad. Shot in front of our quarters.  
 198; 42; 106; 71; culmen, 24; gape, 20;  
 tarsus, 19; mtc., 21; cl., 9. Irides, dark red.  
 Bill plumbeous; darkest above. Tarsi and feet  
 plumbeous; claws dusky-plumbeous.

Note. *Lophortyx gambeli*. I have collated  
 and tabulated the measurements of Gambel's  
 quail up to date. The specimens tabulated were  
 20 ♂ ad. ad., 10 ♀ ad. ad., and 6 juv.; total, 36.  
 Besides those tabulated as above, there were a  
 number of spp. collected without measurement,  
 as follows: 2649, 2650, 2651, 2665, 2686, 2756,  
 2786, 2787, 3138, 3139, 3140, 3151, 3152, 3189,  
 3190, 3191, 3282, 3283, 3307, 3502, 3503.  
 Total number collected, 57.

January 30<sup>th</sup>, 1885  
 13742 *Carpodacus frontalis* ♀ ad.  
 152; 252; 80; 66; cul., 11; gape, 11.5; tars., 19;  
 mtc., 18; cl., 5. [No. 3741 is catalogued on page, 279.]

February 3<sup>rd</sup>, 1885. Ft. Verde, A. T.  
 Dr. Cleanderin and I went on a Deer hunt  
 up on the mesa east of the Post. We each  
 took a "long Tom" or Infantry rifle. We crossed  
 the Verde and rode up the wood road on to the  
 top of the mesa, then skirted the cañons running  
 towards Beaver Creek, and turned gradually  
 towards the foothills of the Mogollons. We found  
 Deer tracks among the cedars in the foothills.  
 Then we followed up a deep cañon for a few  
 miles, and found a Red-tailed Hawk's nest on a  
 cliff, which we visited, but could find no Deer  
 or Bear signs. Returning home we followed a  
 cañon to Clear Creek east of Whigfield's ranch,  
 in which we found Long-eared Owls, Robins  
 and one fine buck of the Mule Deer  
 which we both missed several shots at.  
 The following named species of Birds and

Mammals were seen on the mesa, the  
 fauna of which differs in some respects from  
 that of the Verde Valley:—

Mammals.—

*Tamias striatus borealis*. Gila chipmunk.

Several were seen in rocky cañons filled  
 with crevices and holes.

*Spermophilus grammurus*, Rocky Mountain.

Line-tailed Squirrel. At least a dozen were

seen in different places. Most of them were  
 in Rocky cañons.  
~~*Lepus sylvaticus*~~ were seen flying this evening. 4/18/85. Winters,  
 Arizona

Their piles of sticks and ear-ribs were abundant

*Lepus sylvaticus arizonae*. Desert Hare. A few.

*Lepus carolinensis texianus*. Northern Jackass Hare

abundant everywhere.

*Canis macrotis*. Mule Deer. Tracks were

seen in several places, but only one was

seen. We were just coming out into the valley

of Clear Creek, from the mesa and deep cañon

through which we had traveled for several

miles, when the Doctor exclaimed: "See that

Deer—a big buck!" We slipped off our

horses and I waited for the Doctor to fire.

He said: "You count three!" I counted and we

both fired at the buck, as he stood brownish

about 100 yards away. He sprang forward and

held his head roughly up and then made

some indignant sounds over the gulches

in the side of the cañon, and then stopped

in a patch of greasewood about 125 yards

from us. I fired again, and so did the

Doctor, but although our rifles were down

to the 100 yard range every shot appeared to strike

just over the Deer. He then ran up the steep slope

and stopped again at 300 yards, and we fired

again. The Doctor had raised his sights and fired

over, but my shot probably fell a little under

him. Then he pranced up onto the brow of



February 3<sup>rd</sup> - Continued.

the hill, and stood in relief against the sky. He was a splendid specimen, with large horns. As he disappeared over the brow of the hill, we mutually congratulated each other upon our superb marksmanship, and rode home.

Birds: -

Merula migratoria propinqua. - A large flock in a narrow canon near Clear Creek.

Sialia arctica. - In large flocks about some water tanks on the mesa.

Tyrannus townsendi. A few of these birds were seen where there were cedars.

Regulus calendula.

Salpinctes obsoletus.

Catherpes mexicanus conspersus.

Lophophanes inornatus. Common in cedars.

Dend. ruf. minor.

Lanius ludovicianus excubitorides.

Carpodacus frontalis.

Zonotrichia leucophrys intermedia.

Junco (whether oregonus or cinereus) I do not know. I am unable to distinguish between the two when alive, and now were shot.

Pipilo maculatus megalonyx. In the foothills.

Pipilo aberti. Seen on top of the mesa.

Corvus corax.

Phalacrocorax woodhousei. - On the foothills.

Sturnella neglecta. Common.

Peucaea scalaris. Common enough every where.

Colaptes auratus mexicanus. Common.

Esalon columbarius. One fine adult was seen in the cedars on the foothills.

Linumulus sparverius. Common.

Buteo borealis calurus. A pair were sitting on some cedars on a high cliff in the foothills. Dr. Townsend fired a few rifle shots at them, and started them from the trees. One of them was afterwards seen

to alight upon a large nest <sup>built on a ledge</sup> near the top of the cliff. We ~~walked~~ climbed up the steep, rocky slope, and I attempted to climb up to the nest, but a mass of loose rock which I grasped for support gave way and rolled to the foot of the cliff, nearly carrying me with it. I then descended with much difficulty, and went around to the top, and looked down into the nest which was very bulky, built of cedar sticks and roughly lined with bark and <sup>pinon</sup> turps & branleets. Although completed apparently, no eggs had been deposited.

Asio americanus. I shot and wounded a Long eared Owl in a cedar tree in a narrow, high box canyon, which was

February 5<sup>th</sup> 1885. Fort Verde, A. T.

3743. Agelaius phoeniceus ♂ ad.

250:408:134:110: cul, 23: gape, 22: tars., 30: Mte., 31: cl., 8.5.

3744. Agelaius phoeniceus ♂ juv.

234:393:125:95: cul, 22.5: gape, 22.5: tars., 32: Mte., 31: cl., 9.

3745. Agelaius phoeniceus ♀ ad.

201:332:108:81: cul, 18: gape, 18.5: tars., 25: Mte., 26: cl., 8.5.

3746. Agelaius phoeniceus ♀ ad.

204:337:108:83: cul, 19: gape, 19: tars., 26: Mte., 27: cl., 9.

3747. Agelaius phoeniceus ♀ ad.

212:342:112:90: cul, 20.5: gape, 21: tars., 27.5: Mte., 27: cl., 8.5.

✓ 3748. Neorhynchus crissalis ♂ ad.

290:315:97:137: cul, 36: Mte., 30: gape, 42: tars., 34: Mte., 30: cl., 8.

✓ 3749. Calamospiza melanocorys See Aux Vol. II Page 49.

Lark Bunting. ♂ ad. 175:305:92:78: cul, 15: gape, 15: tars., 27: Mte., 25: cl., 6.5.

✓ 3750. Calamospiza melanocorys ♂ ad.

175:292:90:76: cul, 14: gape, 15: tarsus, 26: middle toe and claw, 23: claw alone, 7.

3751. *Calamospiza melanocorys* ♀ ad.  
170; 270; 82; 68; cul., 14.5; gape, 15.5;  
tarsus, 25; mte., 22; cl., 5.5.
3752. *Calamospiza melanocorys* ♂ ad.  
180; 282; 95; 73; cul., 15.5; gape, 16;  
tarsus, 25; mte., 23; claw, 6.
3753. *Amis collaris* ♂ ad.  
418; 675; 184; 71; cul., 4.5; gape, 50;  
height of bill at base of culmen, 20; width below  
nostrils, 21; bare tibia, 15; tars., 54; mte., 60; cl., 8.  
Irides yellow.
3754. *Amis collaris* ♂ im.  
435; 735; 198; 70; cul., 43; gape, 28;  
gape, 50; height of bill at base of culmen, 25; width  
below nostrils, 20; bare tibia 11; tars., 38;  
mte., 65; cl., 8. Irides yellow.

February 9<sup>th</sup> 1885. Ft. Verde, A.T.

3755. *Bubo virginianus subarcticus* ♂ ad.  
480; 275; 365; 210; cere + cul., 40; cere, 21  
culmen, 24; gape, 45; tarsus, 59; middle  
toe and claw, 66; claw, 26. Stomach contained  
portions of Cottontail.

3756. *Timmincus sparverius* ♀ ad.  
267; 588; 200; 138; culmen and cere, 15;  
cere, 4; culmen, 13; gape, 18;  
tarsus, 36; mte., 33; cl., 10.

3757. *Pipho-dytes circallatus* ♀ ad.  
435; 610; 177; 100; cul., 36; nost., 26; gape, 48;  
height of bill at base of cul., 12; width below  
nostrils, 8; bare tibia, 8; tars., 29; mte., 54; cl., 7.

3758. *Timmincus sparverius* ♂ ad.  
272; 575; 194; 135; cere + cul., 12;  
gape, 16; tars., 35; mte., 31; cl., 10.

3759. *Fulica americana* ♂ ad. Whipple Bar-  
racks, Prescott, A.T. February 8<sup>th</sup>, 1885.  
Length to end of toes, 555; length, 410; 700;  
200; 63; cul. measured from base of frontal  
plate, 46; frontal plate, 12; cul. from  
frontal plate, 35; gape, 36; bare tibia, 19;  
mte. tars., 60; mte., 89; cl., 14. Irides bright  
red, bill rosy flesh color (frontal plate dark  
brownish red); tipped with greenish blue, with a  
slight mark of same above each nostril and  
marked above & below with subterminal band of dark  
red. Legs & feet greenish plumbeous, the tibiae  
banded externally with very pale orange red,  
Claws, plumbeous black.

3760. *Anas boschas* ♂ ad. Ft. Verde, A.T. Feb. 10<sup>th</sup>, 1885.  
Weight 2 lb. 15 oz. 627; 1005; 303; 112. cul. fr. f. f. 58; exl. base, 69;  
nost. 47; gape, 70; height at ext. base 26; width at base 23; greatest width, 25. 1/2.  
off bill to end of cul. 92; cere + cul., 129; cul. at f. f. to cere, 65; head to base of cul., 208; tib. 100;  
bare portion, 15; tarsus, 49; mte. 66; cl., 8.5; hte., 21; cl. b. 2. diam. 14.9. 2.

February 11<sup>th</sup>, 1885. Ft. Verde, A.T.

3761. *Fulica americana* ♂ ad. Not Skinned

Letter relating to my specimen (No. 159) of  
*Cariaeus leucurus*. White-tailed Deer.  
"Whipple Barracks, Dec. 23, 1884.

"Dr. Means

"Dear Sir,

"This is the part of which I had  
brook telegraphed to you, but in a rather  
dilapidated condition. You will have to do some  
crazy patchwork if you desire to mount it.  
The antler was broken off and lost by the  
packers, but was soe similar to the other.  
It was killed near the base of the Pine Hill  
mountain on the 5<sup>th</sup> of December, 1884.

(Yours truly  
Chas. H. Allen."



February 17<sup>th</sup>, 1885 Ft. Verde, A.T.

- ✓3762. *Agelaius phoeniceus sonoriensis* ♀ ad.  
212: 350: 112: 40: cul., 20: gape, 20: tars., 27:  
Mte., 28: claw 8.5.
- ✓3763. *Agelaius phoeniceus sonoriensis* ♀ ad.  
198: 327: 108: 37.5: cul., 18: gape, 19: tars., 27:  
Mte., 26: claw, 8.
- ✓3764. *Agelaius phoeniceus*. ♂ ad.  
202: 336: 105: 84: cul., 20: gape, 20:  
tarsus, 26: Mte., 27: cl., 8.
- ✓3765. *Scolecophagus cyanocephalus*. ♂ ad.  
242: 382: 124: 101: cul., 31: gape, 24:  
tars., 32: Mte., 27: claw, 8. Irides, hazel!
- ✓3766. *Scolecophagus cyanocephalus*. ♂ ad.  
(1st skin). 255: 400: 132: 106: cul., 21.5: gape, 24:  
tars., 35: Mte., 31: cl., 9. Irides, yellow.
- ✓3767. *Harporhynchus crissalis*. ♂ ad.  
315: 332: 108: 152: cul., 39: most., 31: gape, 41:  
tars., 33: Mte., 31: cl., 7.
- ✓3768. *Sialia arctica* ♀ ad.  
177: 330: 109: 71: most., 10: gape, 22: tars., 23:  
Mte., 21: claw, 6.
- ✓3769. *Amphispiza belli nevadensis*. ♂ ad. ad.  
163: 262: 84: 76: cul., 12: gape, 12: tars., 23:  
Mte., 19: claw, 5.
- ✓3770. *Amphispiza belli nevadensis*. ♂ ad.  
166: 246: 82: 77: cul., 11.5: gape, 13: tars., 22:  
Mte., 19: claw 5.
- ✓3771. *Amphispiza belli nevadensis* ♂ ad.  
168: 258: 81: 77: cul., 12: gape, 12.5: tars., 23:  
Mte., 20: claw, 5.
- ✓3766. *Fulica americana*. ♂ ad.  
Length to end of toes, 575: 410: 735:  
215: 63: cul., 48: frontal plate 11: cul. fr  
frontal plate, 39: gape, 36: bare to 28:  
tarsus 62: Mte. 95: cl., 15.

February 19<sup>th</sup>, 1885. Ft. Verde, A.T.

- ✓3761. *Zonotrichia leucurus*. ♂ ad.  
192: 343: 108: 73: cul., 21: gape 28:  
tars., 19: Mte., 20: claw 8.
- ✓3772. *Zonotrichia leucurus*. ♂ ad.  
191: 336: 105: 73: cul., 25: gape 28: tars., 20:  
Mte., 22: claw 9
- ✓3773. *Zonotrichia leucurus* ♀ ad.  
183: 330: 105: 70: cul., 21: gape 23, tars., 19:  
Mte., 20: claw 9.
- ✓3774. *Thryomanes bewickii leucogaster* ♀ ad.  
137: 176: 56: 57: most., 11: gape 19: tars., 18:  
Mte., 6: claw 5
- ✓3775. *Tinnunculus sparverius* ♂ ad.  
262: 555: 182: 131: cul. cov. 5: cov. 4:  
cul., 12: gape 17: tars., 37: Mte. 36: claw 11
- Among the birds seen were the following.  
*Sporophila montana*. One pair on desert a run,  
near the Cist. Building.
- Agelaius californicus*. Abundant. Not yet singing.
- Harporhynchus crissalis*. In full song.
- Sialia arctica*. The loud alarm note is now more  
often heard, and also a curious, short song,  
if so it may be called.
- Amphispiza fasciata galax*. In full singing song.  
The song has a strange similarity to the Eastern  
melody, but is not quite identical.
- Junco*. Quite numerous but not specifically identified.
- Peromyscus alpestris leucocoma*. A large  
flock of this variety about the corral, but  
especially restless and shy.
- Arctus macularius*. Not scarce along streams,  
but usually single or in pairs.
- Quercus sonoriensis*. Quite numerous, and has been  
all winter.
- Lingoides macularius*. A few of these birds  
are still here, and have been present all winter.
- Ardea herodias*. Has been near in some  
numbers all winter and is still present.

(Time 17<sup>1</sup> - continued.)

Our Observations. - Our female shot had the center  
along which were to move stars, as if some  
frequency passing in and out of a hole in water.  
But they already be settling?

Colaptes auratus mexicanus. Abundant, as it  
has been all winter in cottonwoods along the  
Verde, and especially along Beaver Creek; but  
it is generally disturbed.

*Trypanos. brwii leucogaster*. - Has been present and tolerably common throughout the winter.

Accipiter luscus. } Rather abundant all winter.  
Accipiter cooperi }

Butia borealis calurus. - Several seen. One with dark lower surface, a form which is scarce here.

Ceryle alcyon. - Several seen. It has been quite common all winter.

Feb-mar 21<sup>st</sup>, 1885. Fort Verde, Arizona.

1877. Centurus ludovicianus. ♂ ad.

172; 282; 87; 70; cul. 12; noet. 9; mte. 17;  
tarsus, 22.5; mte., 20; cu. 5. hind. 8.5.

5777. Xanox hyemalis shufeldti ♂ ad.

TL, 252; SL, 81; TL, Culmen, 11.5; Gape, 11.5;  
Tarsus, 22; Int., 20; Cl., 5.

$\frac{1}{2}$  775. Ceryle alcyon. ♂ ad. 7. Counting, but quills perfect.

333, 562, 264, 98, cal, 58, wof, 45,

Cathartes aura. A large flock of Buzzards  
at the butcher shop.

February 25<sup>th</sup> 1885. - The end A. V.

✓ 3259 Melospiza fasciata gallax <sup>montana</sup> <sup>Hunst</sup> <sup>Mountain</sup>  
Long Shadow. ♂ ad.

164: 225: 72: 76: cul., 12: gape, 13: tars., 22.5:

3780. *Macropygia fasciata* gallax var. novo. Lila Song Sparrow. ♂ ad.  
163:216:67:75: cul., 12.5: gape, 13.5: tars., 22:  
mte., 20.5: cl., 5.3. Irides, hazel. Bill, feet and  
claws, like No. 3779.

These specimens may be taken as types of two distinct geographical races of Melospiza fasciata fallax. No. 3779 is typical of that variety, while No. 3780 may be taken as the type of a new race, which has hitherto never been characterized, inhabiting the Gila Basin. It is the only species found in this locality during the summer, and inhabits exclusively the vicinity of streams, where it breeds sparingly. Specimens shot at Fort Mojave did not differ from those found here, and doubtless elsewhere throughout the Gila Basin. The measurements of a specimen shot at Ft. Mojave in May 1884, are given on page 12 of Journal.

1378. Agelaius phoeniceus ♀ ad.

198:329:104:78: cul., 20: gape, 20: tars., 26.5: mte., 26: claw, 8. Iris, hazel, Bill dusky bluish above, pale plumbeous below. Feet, brownish black, feet and claws black. Feathers of shoulder edged with red. This may be a sign of maturity. The following four specimens lack any decided tinge of red on the shoulders and have the throat paler.

✓ 3752. Agelaius phoeniceus ♀ ad. sonoriensis

191: 331: 106: 80: cul, 19.5: gape, 19: tars, 26: mte., 27: cl, 8. Colors same as 3781.

13783. Agelaius phoeniceus ♀ ad. Sonorae

198: 339: 106: 83: cul., 18: gape, 18: tars., 27: mte., 26: claw 8.5. Colors of parts same as 3781.

✓ 3784. Agelaius phoeniceus ♀ ad.

195: 330: 108: 81: cul., 18: gape, 17.5: tars., 26: mte., 25: claw, 7. colors same as 3781.

✓ 3785. Agelaius phoeniceus Ad. sonoriensis

206: 349: 116: 90: cul, 19.5: gape, 19: tars, 26.5: Mtc., 27: cl., 8.5. colors of parts same as 3781.



- ✓ 3786. *Sayornis sayi* ♀ ad.  
192:310:102:85: bill from nostril, 12: gape, 23.5: breadth below nostril, 6: tars., 20: Mte., 17: cl., 5.5. Irides, hazel. Bill black, brownish at base of mandible, tarsi, feet and claws, black.
- ✓ 3787. *Sayornis sayi* ♂ ad.  
193:321:106:88: bill from nostril, 11.5: gape, 22: breadth opposite nostril, 6.2: tars., 20.5: Mte., 17: cl., 6. Irides of part. name as 3786.
- ✓ 3788. *Picus scalaris* ♀ ad.  
186:333:100:72: cul., 21.5: gape, 22.5: tars., 18: Mte., 20: claw, 8.
- ✓ 3789. *Picus scalaris* ♂ ad.  
191:339:107:71: cul., 23.5: gape, 26: tars., 20: Mte., 21: claw, 8.5.
- ✓ 3790. *Picus scalaris* ♂ ad.  
191:344:108:68: cul., 25: gape, 27: tars., 20.5: Mte., 20.5: claw, 8.5.
- ✓ 3791. *Picus scalaris* ♂ ad.  
191:339:107:72: cul., 24: gape, 26: tars., 19: Mte., 20.5: claw, 8.5.
- ✓ 3792. *Picus scalaris*  
188:342:107:69: cul., 24.5: gape, 26: tars., 20: Mte., 20.5: claw 8.2.
- 3 In all of the above five specimens the colors of parts are as follows; Irides, red. Bill dusky plumbeous, tarsi & feet greenish plumbeous; claws dusky.
- ✓ 3793. *Colaptes auratus mexicanus* ♀ ad.  
333:540:170:130: cul., 38: gape, 41: height at base, 8.5: tars., 30: Mte., 33: cl., 12. Irides, dark red. Bill, plumbeous black, tarsi and feet greenish plumbeous, claws, dusky plumbeous.
- ✓ 3794. *Oxyechus vociferans* ♀ ad.  
260:530:168:103: length to end of tars., 270: cul., 21: gape, 23: bare tibia, 20: tars., 39: Mte., 27: claw, 6.
- ✓ 3795. *Oxyechus vociferans* ♂ ad.  
256:530:168:107: length to end of tars., 250: cul., 20.5: gape, 23: bare tibia, 18.5: tars., 33: Mte., 35: claw, 6.

- ✓ 3796. *Oxyechus vociferans* ♀ ad.  
246:535:178:113: length to end of tars., 255: cul., 22: gape, 24: bare tibia, 19: tars., 36: Mte., 25: cl., 6.
- ✓ 3797. *Oxyechus vociferans* ♂ ad.  
250:510:167:101: length to end of tars., 251: cul., 22: gape, 23: bare tibia, 19: tars., 37: Mte., 26: cl., 4.5.

February 27<sup>th</sup> 1885. Ft. Verde, A.T.  
*Tringoides macularius*. — One beside the Verde was still in winter dress, unspotted beneath.

March 1<sup>st</sup> 1885 —

3798. *Sayornis sayi* ♀ ad.  
195:325:104:88: bill from nostril, 11.5: gape, 22.5: breadth of bill below nostril, 6.5: tars., 20: Mte., 17.5: cl., 6.

March 2<sup>nd</sup> 1885

- Copper Canon near Ft. Verde, A.T.  
3799. *Peucaea ruficeps* ♂ ad.  
160:215:66:75: cul., 13: width of bill at forehead, 6: gape, 14: tars., 21: Mte., 19: cl., 5. Irides hazel. Bill, dusky plumbeous above, mandible pale plumbeous, shading to dusky at tip. Tarsi flesh color, feet brownish flesh color, claws brown. This is typical *ruficeps*.

3800. *Dialia mexicana* ♂ ad. Copper Canon, San M. Co., N.M.  
178:333:112:74: most, 7: gape, 19.5: tars., 20: Mte., 19.5: cl., 6. Irides, dark brown. Bill, brownish-black (nearly pure black) <sup>narrowly</sup> edged with yellow laterally at base. Tarsi <sup>feet</sup> claws, brownish-black; "soles" of feet, yellowish.

3801. *Myiadestes townsendi* ♀ ad. Copper Canon.  
216:340:114:105: most l., 7: gape, 19: tarsus, 21: Mte., 20.5: cl., 6.5. Irides, very dark brown. Bill, black. Tarsi, feet and claws, brownish black. (Sole of feet, yellowish.)
3802. *Myiadestes townsendi* ♂ ad. Copper Canon.  
220:350:118:108: most l., 7.5: gape, 19: tarsus, 22: Mte., 22: cl., 6.5. Colors of parts as above.

3503

March 2nd 1885 Ft. Verde, Ariz.  
*Urocyon virginianus subarcticus* ♂ ad.  
 510: 1255: 355: 205: cul. + cere, 40: cere, 21:  
 cul., 24: gape, 42: Mte., 65: cl., 25.  
 hind claw, 21: inner claw, 27: outer claw, 22. Shot in a  
 cottonwood tree beside the Verde River. Stomach,

Letter from General George Crook relative  
 to two skulls of *Mustelidae* in my collection.  
 "Prescott. March 14 1885.

"My dear Doctor

"I enclose two skunk-heads  
 which I got yesterday. The larger one re-  
 longed to a female skunk of the ordinary  
 kind; the smaller one was a male and of  
 a different species. It was not more than  
 half the size of the other, though it apparently  
 had reached maturity. Its back had small  
 longitudinal black and white stripes with  
 comparatively short and rather bushy tail.

I had previously killed a male skunk  
 and a wild cat, but was unable to find  
 their skeletons after receiving your letter."

"Yours sincerely  
 (Signed) George Crook"

March 4th 1885, Ft. Verde, Ariz.  
 3804 *Ammodramus* *parvicornis* ♂ ad.

280: 610: 202: 138: cul. + cere, 15: cere, 4:  
 cul., 12.5: gape, 17: tars., 37: Mte., 33: cl., 10.

3805 *Colaptes auratus mexicanus* ♂ ad.

329: 536: 120: 39: gape, 43: cul., 39: tars., 31:  
 Mte., 34: claw, 12.

3806 *Melospiza lincolni* ♂ ad.

March 5th 1885: Ft. Verde, Ariz.  
 147: 212: 68: 69: cul., 11: gape, 11: tars., 20.5:  
 Mte., 19: d., 5. Irides hazel, culmen ~~blackish~~  
 mandible flesh color at base becoming dusky towards  
 tip. Tarsi, feet + claws, brownish flesh color.

March 5th continued

3807 *Agelaius phoeniceus* ♂ ad.

211: 342: 109: 83: cul., 19: gape, 20: tars., 29:  
 Mte., 28: claw, 8.5.

3808 *Agelaius phoeniceus* ♂ ad.

208: 335: 105: 85: cul., 20: gape, 20: tars., 27:  
 Mte., 26: claw, 8.

3809 *Oxyechus vociferus* ♂ ad.

250: 497: 160: 103: cul., 20.5: gape, 24: bare  
 tibia, 20: tars., 34: Mte., 25: cl., 4.5.

March 6th 1885 Ft. Verde, Ariz.

March 7 *Cariacus macrotis* *Saginensis* ♂ ad.

Head (skinned skull of), one fore and one hind  
 foot preserved. Weight when dressed with  
 skin, head and feet cut off, 70 lbs.

Length from nose to ear, 173; ear, 260; tip of ear, 500;  
 occiput, 320; distance from ear to ear, 11; back of head, 21; distance  
 from crown to crown, 230; distance between  
 eyes, 106. Distance from ear to ear, 340.

Breadth of ear, 120; birth of head midway between  
 eyes and base of ear, 420; from tip of nose to  
 angle of mouth, 86.

March 7th 1885. Ft. Verde, Ariz.

3810 *Gallinago media wilsoni* ♂ ad.

273: 440: 139: 65: cul., 64: gape, 63:  
 bare tibia, 16: tars., 31: Mte., 35: claw, 6.5:  
 length to end of toes, 318:

3811 *Oxyechus vociferus* ♂ ad.

261: 518: 172: 106: cul., 19.5: gape, 23.5:  
 bare tibia, 19: tars., 36: Mte., 26: cl., 5: length to  
 end of toes, 262.

3812 *Oxyechus vociferus* ♂ ad. (Not skinned.)

3811a 255: 504: 168: 100: cul., 20.5: gape, 23: bare  
 tibia, 18: tars., 39: Mte., 28: claw, 5: length to  
 end of toes, 263.



3813. *Oxyechus vociferus* ♂ ad.  
 256:510:167:104: cul., 20: gape 23:  
 tars., 17.5: tars., 37: Mte., 28: claw, 7:  
 length to end of toes, 263. ~~Ad.~~
- 3814 *Eremophila alpestris adusta* (fielding) ♂ ad.  
 177:326:105:74: cul., 13.5: nost., 10: gape, 17:  
 ear tufts, 15: tars., 22: Mte., 17.5: claw, 6: hind  
 claw, 9. Irides, bright hazel; bill, dusky plum-  
 beous above + on tip of mandible, basal  
 two thirds of mandible, pale blue. Ears, feet  
 and claws, uniform plumbeous black.
3815. *Anthus ludovicianus* ♂ ad., moulting.  
 166:276:88:67: cul., 12: nost., 9: gape, 17:  
 tars., 23: Mte., 18: claw, 4: hind claw, 8.
3816. *Lanius ludovicianus excubitorides* ♀ ad.  
 234:327:103:109: cul., 17: nost., 12.5:  
 gape, 25: tars., 27: Mte., 25: claw, 7.
3816. *Nettion carolinensis* ♀ ad.  
 379:607:180:82: cul., 36: nost., 28: gape, 42:  
 height of bill + frontal feathers, 13: breadth below nos-  
 trils, 14: bare tibia, 12: tars., 29: Mte., 40: cl., 7.

March 14<sup>th</sup>, 1885. Ft. Verde, A. T.  
*Calamospiza melanocorys*. - In large  
 flocks of several hundred each. They are  
 now singing a peculiar song as they sit on  
 the top of a bush, whence they frequently fly  
 up in the air and return to the same place  
 like a flycatcher. Their call-note is very  
 pleasing. They have not yet moulted.  
*Agelaius phoeniceus*. - Several large flocks,  
 varying in size from fifty to several hundred  
 individuals, circulate in the vicinity of the  
 Post. These flocks are usually present along  
 the border of the Verde River, or else about  
 the corrals and haystacks in the Post. The  
 sexes usually fly in separate flocks, and  
 the females are much more abundant  
 than males. In a flock of perhaps one

hundred birds, not one male have I ever  
 seen although I see the flock every time  
 I go hunting.

*Sceloporus magus cyanocephalus*. - Still very  
 abundant about the Post. When I came here on  
 March 25<sup>th</sup> last, the first sight that presented  
 on ascending was a parade-ground covered  
 with Brewer's Blackbirds, while their notes  
 filled the air. During the past winter, they did  
 not alight upon the parade ground; but about  
 the first of March they began to resort there  
 early each morning again. They spend the  
 hottest part of the day, in the shade upon  
 the ground beneath a mesquite bush. They  
 like to roost upon roofs of buildings.

*Philospiza lincolni*. - Several were seen  
 in piles of debris and the roots of upro-  
 overturned trees on the margin of the Verde,  
 but they were shy, and I only captured one spec.  
 Its note is quite loud, and unique.

*Astragalinus psaltria*. - None have been seen  
 during the past winter; but to-day a small  
 flock was found among the cottonwoods, beside  
 the River. I shot three; but their crops were  
 so distended with worms which they had  
 gleaned from the cottonwoods that the brood  
 open when they fell to the ground, and in  
 each a globular mass of bright yellow  
 worms about 10 mm in length and exactly  
 of the color of the Goldfinches' breast was found.

*Carpodacus frontalis*. - Singing a loud  
 and very remarkably fine song. When  
 flying <sup>in flocks</sup> overhead they were in full song,  
 and they also sang from the cottonwood  
 tops, or flew up in the air and descended  
 singing. Were feeding upon the yellow worms described  
 by Wheeler.

*Sialia arctica*. - Quite numerous along the Verde.  
*Sialia arctica audubonii*. - Common in the trees  
 along the streams.

March 14<sup>th</sup> Continued.

- 3817 *Melospiza lincolni* ♂ ad.  
139: 205: 63: 63: cul., 11.5: gape, 12: tars., 21:  
Mte., 19: cl., 4.5: hind claw, 6.5. Iris hazel.  
angle of mouth and base of mandible, yellowish.  
apical of mandible, flesh color, with pale bluish  
lateral bands. Maxilla, dark brown. Tarsi, brownish  
flesh color, feet a shade darker.
- 3818 *Junco hyemalis shufeldti* ♀ ad.  
148: 225: 75: 68: cul., 11.5: gape, 12.5: tars., 19:  
Mte., 19: cl., 5.5.
- 3819 *Carpodacus frontalis* ♂ ad.  
154: 240: 80: 70: cul., 11: gape, 11.5: height of  
bill at base, 8: breadth, 7.5: tars., 17: Mte., 18.5: cl., 5.
- 3820 *Carpodacus frontalis* ♂ juv. Immature, but full grown.  
with forehead, throat and rump, pale rose color mixed  
with yellow. Bill, tarsi and feet all dark in color than  
above. 151: 246: 80: 66: cul., 11: gape, 11:  
tars., 18: Mte., 18.5: claw, 4.5.
- 3821 *Ceryle alcyon* ♂ ad.  
338: 588: 166: 104: cul., 57: gape, 73: height of  
bill in front of nostril, 13: at base of cul., 16: width at  
gape, 22: bare tibia, 11: tars., 12: Mte., 23: cl., 9.
- 3822 *Buteo borealis calurus* ♀ ad.  
570: 1385: 438: 235: Cul + Crev, 40: Crev, 18  
cul., 28. Gape, 47: tars., 80: Mte., 64: Cl., 23: HCl. 31  
Inner claw 28: outer cl 18: Irides hazel. Crev yellowish  
green. Bill plumbeous at base shading to blue black  
at tip. Claws plumbeous black, Tarsi & feet  
luminous yellow.

March 17<sup>th</sup>, 1884. Fort Verde, Arizona.

- 3823 *Melospiza fasciata fallax* ♂ ad.  
162: 225: 70: 78: cul., 12: gape, 13: tars., 24: Mte., 20.5:  
claw, 5.5. Stomach empty.
- 3824 *Melospiza fasciata fallax* ♂ ad.  
163: 222: 70: 77: cul., 12: gape, 12.5: tars., 22: Mte., 21:  
claw, 5.5.

- 3825 *Melospiza fasciata fallax* ♀ ad.  
153: 205: 67: 71: cul., 12: gape, 12.5: tars., 22:  
Mte., 20: claw, 5.
- 3826 *Regulus calendula* ♂ ad.  
113: 182: 61: 47: cul., 11: gape, 11: tars., 18.5:  
Mte., 13.5: claw, 3.7.
- 3827 *Zenaidura macroura* ♀ ad.  
253: 463: 157: 155: cul., 15: gape, 20: tars., 22: Mte., 25:  
claw, 4.5.
- Cyroccephalus rubinus mexicanus*. - First seen.

March 18<sup>th</sup>, Ft. Verde, A.T.

- 3828 *Melospiza fasciata* ♂ ad. ~~First seen!~~  
142: 210: 69: 68: cul., 11.5: gape, 12: tars., 19:  
Mte., 16.5: claw, 4.5.

- 3829 *Fulica americana* ♀ ad.

Length to end of claws, 520: 380: 655: 190: 60:  
cul., 45: gape 31: bare tibia, 23: tars., 59:  
Mte., 84: claw, 11.5.

*Xanthocephalus icterocephalus*. - Several were seen  
to-day about the corral, which were the first seen.

March 19<sup>th</sup>, 1885. Ft. Verde, Arizona.

~~Thalassidroma~~ *Tachycineta thalassidroma*. - Quite a  
number of Swallows were seen to-day for  
the first. Those that I saw near enough to iden-  
-tically were of this species.

March 20<sup>th</sup>, 1885. Ft. Verde, Arizona.

*Harpodichthys crissalis*. - Their number  
considerably decreased about the beginning  
of March.

*Astragalinus psaltria*. Now abundant & singing  
in the cottonwoods associating with House Finches.  
*Dendroica auduboni*. - One seen to-day.  
*Agelaius vociferus*. Returning home from  
up the Verde, these birds were having a  
great concert and were flying about  
high in the air in flocks and then along



The sand flats were crying sharply at us. When flying in flocks overhead I have often heard a twittering note that they only utter when flying. They sometimes fly in circles in the air during the daytime; and at night I frequently hear them crying loudly as they fly over the ghats. In damp, rainy weather they leave the River and alight anywhere and often spend the night away from water.

*Colaptes auratus mexicanus*. - Common.

*Sturnella neglecta*. They like to frequent the patches of dock or Rhubarb which grow in the bottom and are now in flower.

*Zonotrichia gambeli intermedia*. - It seems to be the most abundant Sparrow now.

*Nettion carolinensis*. - Still common.

*Sperquedula carolinensis*. - One large flock.

*Anas boschas*. - Still common.

*Zenaidura carolinensis*. - Still scarce.

Not a dozen were seen between the Post and Blackford's, both ways.

*Sayornis sayi*. - Musical and abundant.

Flies up in the air & suddenly descends.

Sings when flying.

*Agelaius phoeniceus*. Flocks of females seen in either direction along the River, but no males!

*Sayornis nigricans*. - Getting more common; but the species is never abundant.

*Picus scalaris*. - The migration seems to have passed, and the species is not now numerous.

*Lophortyx gambeli*. - A few are met with singly or in pairs now.

*Podiceps gramineus* has not yet become numerous, although the species remains through the winter.

3830. *Limnunculus sparverius* ♀ ad.

280:593:195:138: cul. + cere, 16: cere, 4: cul, 13: gape, 18: tars., 36: Mte., 32: claw, 10.

3831. *Lophortyx gambeli* ♀ ad.

258:371:117:99: cul, 12.5: nostr., 8.5: gape, 15: tars., 33: Mte., 34: claw, 9.

3832. *Lophortyx gambeli* ♀ ad.

267:370:113:95: cul, 11: nostr., 8: gape, 13: tars., 33: Mte., 36: claw, 10.

~~3832~~ *Zenaidura carolinensis* ♂ ad.

3832a 338:475:160:168: cul, 15: gape, 21: tars., 23: Mte., 25: claw, 6. Not skinned.

3833. *Limnunculus sparverius* ♀ ad.

266:590:193:125: cul. + cere, 16: cere, 4: cul, 13: gape, 19: tars., 36: Mte., 31: claw 11.

3834. *Nettion carolinensis* ♀ ad.

378:595:182:78: cul, 39: nostr., 29: gape, 44: breadth of bill below nostrils, 14: height of bill at extreme base, 15.5: bare tibia, 12: tars., 31: Mte., 41: claw, 16.5.

3835. *Nettion carolinensis* ♀ ad.

356:592:177:73: cul, 35: nostr., 27: gape, 41: breadth of bill below nostrils, 12.5: height of bill at extreme base, 14: bare tibia, 11: tars., 29: Mte., 41: claw, 6.5.

March 23<sup>rd</sup> 1885. Ft. Verde, Arizona  
*Sayornis sayi*. Several pairs are building nests. There are two on Capt. Russell's piazza, one at the Hospital, and one at our quarters. They build in the four-story Aztec cliff dwelling on Beaver Creek, and find much amusement in flying up and down the perpendicular cliff, which is studded with the nests of Cliff Swallow (*Petrochelidon lunifrons*), and is the home of many Line-tailed Spermophiles (*Spermophilus grammurus*).  
*Zonotrichia gambeli intermedia* is still abundant and singing.

May 20<sup>th</sup>, 1880, Travel to Ft. Verde.  
Returned to Fort Verde, A. T., from a trip to  
Tumacacui, New Mexico, on horseback, as Surgeon  
in Charge of the 3<sup>rd</sup> and 10<sup>th</sup> Regiments of  
U. S. Cavalry, exchanging stations between Texas  
and Department of Arizona.

May 28<sup>th</sup> 1884. Ft. Verde, A.T.  
Cypripedium saxatile. - Still present here.

May 29<sup>th</sup>, 1884 Ft. Verde, A. T.  
Chalcophaps indica. - Heard at Ft. Verde.

Note on Ptiloptila melanura. Of the five or six adult males procured on the trip to Laramie all had the entire web and tip of the 1st tail feather white, while the second is as the first has been described - i. e. with only the outer edge of outer web white and narrowly tipped with the same. The markings are precisely the same on the (3) adult females taken; but a young bird of the year has a faint tip of white to the third tail feather. In conclusion Ptiloptila plumbea

In Muscobidon Paliophila plumbea is probably immature P. melanura; but I have not yet enough material of plumbea to make a thorough comparison.

341

June 1<sup>st</sup> 1855. Ft. L. M. P.  
I have been the whole day in the boat looking for  
the white-headed bird which was seen in contingency  
along the shore of the cottonwood saplings and  
willows, among the rocks, but in the latter  
part of the day, the water, part of the rocks were in  
opposite of the shore, but, especially, and  
the whole of the day, I was in the boat.

Microperla obscura Lillig. - Quite abundant  
along the stream, but scarce to absent several  
in some localities west.

Urtica dioica L. - a very common weed.



June 2nd, 1885. Ft. Verde, A.T.  
 4071. *Melospiza fasciata* (Linn.) 11, 8 ad. Parent or Sub.  
 164; 216; 68; 76; cul., 12; gape, 13; tars., 23; wing, 21; tail, 5.  
 The following:

11/11/85. Several nests were found containing both young and eggs in various stages of development. Many young are already on the wing.

*Geothlypis trichas*. One nest was found with two eggs.

Two nests found on Big Tree Creek and Ash Creek, on May 19th, 1885. One of which were both eggs.

One nest found on Big Tree Creek, on May 19th, 1885. One of which were both eggs.

One nest found on Big Tree Creek, on May 19th, 1885. One of which were both eggs.

4073. *Geothlypis trichas*. Fat. Parent or Sub. 11/11/85  
 103; 122; 47; 30; cul. from gape to feathers, 21; gape, 26  
 tars., 4.5; wing, 6.5; tail, 2.7.

4074. *Geothlypis trichas*. Fat. Parent or Sub. 11/11/85  
 102; 120; 48; 29; cul. from gape to feathers, 21; gape, 26;  
 tars., 4.5; wing, 6.5; tail, 2.7.

### Botanical Notes.

*Lechinium p. b. b. b.* "Bechwe Cactus". - Common in many places along our line of march between Fort Verde, Arizona and Tule, New Mexico. It is found between Maricopa and Tucson. On its summit are the fruitages in a circle around the top. They are spineless, with coarse, fleshy scales, as large as a small lemon, pleasantly acid to the taste and filled with large black seeds. Color, yellow. Fruit, scarcely edible. Called "Bechwe" and "Fish-hook" Cactus.

June 2nd - Continued

*Falco peregrinus naevius*. - While walking at the base of the limestone cliff beside Beaver Creek a Duck Hawk flew from a ledge and began to cry "kwa-kwa-kwa-kwa-kwa-kwa" in rapid succession, and frequently flew back to a certain ledge and alighted. I might easily have shot it, but, feeling positive that its nest was upon the ledge where it finally alighted and remained quiet, I thought I would return on the following day and try to reach the nest.

June 3rd. Ft. Verde, A.T.

Returned to the Duck Hawk's nest, found a narrow crevice in the cliff and went to the top above the nest. The bird was flying, so I lay down on my side at the edge of the rock and looked down. I shot a stone at the spot before the bird left the nest, and then she wheeled about close to the face of the cliff below me, and then flew to a distance and was joined by her mate. Both birds flew about over our heads where I was standing. Then descended through a break in the cliff wall to a rock only a few rods from the nest, and then the summit of the rock. Birds were circling and they at last assaulted me, brushing close past me. My position on the sharply-pointed rock was precarious, and made me nervous about shooting. I could see the young Hawks, covered with soft white down and began lustily upon a bare shelf of rock and thought that I could get to them, so concluded to shoot the old bird, but my aim was unsteady and the bird escaped badly wounded and was watched until it alighted upon the ground at a distance where I failed to find it, and it never returned to the nest. I managed to reach the young. There was no sign of the nest. The young were huddled on the bare crumbling limestone shelf in a position slightly screened by a block of stone lying in front of them. They were four in number, and attempted to hide, poking their heads into cracks in the rock. Two were taken home alive, and those remaining were spared with one parent. A fragment of the egg-shell was preserved.





*Thryothorus bewickii* - 1st nest  
containing 4 eggs, 1st, 2nd, 3rd, 4th, 5th.  
*Thryothorus bewickii* - 1st nest  
containing 4 eggs, 1st, 2nd, 3rd, 4th, 5th.

4079. *Thryothorus bewickii* - 1st nest. Total length 253  
Alar and wing 124. Tail from root to end 102  
tarsus 19. Culmen 16. Gape 20. Nostril 22  
Bill 48. Occiput 40. Ear to front of eye  
17. Nostril 12. Tail 18  
Bill 34. Culmen 43. Nostril 60  
Gape 75. Tarsus 17.  
Alar and wing 19. Nostril 27.

4077. *Colaptes auratus longicauda*. 1st nest. Parent set No. 3-1.  
Eggs, unusually elongated and large. One broken.  
197: 248: 85: 88: cul, 13.5: nostril 11: gape 18: tarsus 28:  
Mtc, 21.5: claw 5.

4078. *Chondestes cinereus*. 1st nest.  
205: 302: 97: 102: cul, 12: nostril 8.5: gape 16:  
tarsus 19: Mtc, 17: claw 6. Irides bright red, bill jet  
black. Tarsus + feet black showing a tinge of brown  
in a strong light. Claws black.

4079. *Tyrannus verticalis*. 1st nest. Parent set No. 4  
230: 410: 135: 102: cul, 23: nostril 14:  
gape 26: tarsus 20: Mtc, 22: claw 7.5.

4080. *Tyrannus verticalis*. 1st nest. Eggs preserved.  
222: 395: 124: 96: cul, 21: nostril 13: gape 25:  
tarsus 23: Mtc, 21: claw 6. Parent set No. 4.

July 6th 1885. Ft. Verde, A. T.  
Rode up the East bank of the Verde River  
nearly to Blackford (3 1/2 miles) and back on  
the opposite side. In the afternoon with  
Messrs. Mearns & Capt. Ballou rode to  
the narrow cliff Swellings and up the  
cañon as far as possible, and visited  
the Ravens' nest and Peregrine falcons'  
nest.

In the evening rode to Hancock Rancho (10 miles) to  
see a patient.

4081. *Geothlypis gambeli*. 1st nest. Young with parents  
just hatched. In the morning after the storm  
in flight. The female fluttered and quivered  
upon the ground beside me.

4082. *Falco mexicanus polyagrus*. 1st nest. 4 sat forbes  
upon a prominent nubbin on the trunk of a large  
cottonwood. It had deposited its eggs some time ago.  
47.5: 106.5: 34.2: 19.7: cul + cere, 28: cere, 7:  
cul, 22: gape, 31: tarsus, 58: Mtc, 65: cl, 8.5:  
hind claw, 22: inner claw, 20: outer, 17. Irides hazel,  
cere, greenish yellow, bill, pale bluish, mottled  
+ tipped on both mandibles with dusky, plum-  
beous, barred + feet greenish yellow, claws plum-  
beous black. Stomach contents contained a few  
yellow and dark spots. The eggs of *Gambeli* small.

4083. *Scops asio trichopsis*. 1st nest. Parent set No. 4  
209: 555: 160: 88: cul + cere, 20: cere, 10:  
cul, 13: gape, 31: tarsus 36: Mtc, 28: cl, 10:  
Irides yellow, bill greenish plumbeous, tipped  
with horn color, toes, plumbeous, claws dusky  
plumbeous. Feet scantily haired. Stomach empty.

4084. *Scopelogadus frontalis*. 1st nest. Parent set No. 4  
and four eggs. Killed with female parent at same place.  
157: 243: 74: 65: cul, 11: gape, 12.5:  
tarsus 17: Mtc, 19.5: claw, 6.5.

4085. *Scopelogadus frontalis*. 1st nest. Parent set No. 4  
156: 243: 78: 64: cul, 12: gape, 12: tarsus, 20:  
Mtc, 23: claw, 6. Mated with an immature ♂ - No. 4084.

4086. *Guiraca caerulea*. 1st nest.  
181: 282: 51: 72: cul, 18: gape, 19: tarsus, 21:  
Mtc, 22: claw, 6.

4087. *Icterus bullocki*. 1st nest. Parent set No. 4  
200: 317: 105: 88: cul, 19.5: gape, 20.5: tarsus, 25:  
Mtc, 23: claw, 6.

4088. *Pyrocephalus rubinus mexicanus*. 1st nest.  
153: 263: 82: 63: cul, 14: nostril 7.5: gape, 17:  
tarsus 17: Mtc, 14: claw, 4.5

~~#4084~~ *Contopus richardsoni* (S. & L.) ad.  
 107; 243; 51; 35; 10; 9.5; gape, 9; cul., 17;  
 mte., 12; claw, 4.

*Junco cinereus* ad.

189; 297; 94; 81; cul., 17; gape, 17.5; tars., 21;  
 mte., 23; cl., 6.

*fallax*.

*Melospiza fasciata fallax*. ad.  
 171; 233; 59; 78; cul., 12; gape, 3; tarsus, 24;  
 mte., 21; cl., 5. Irides hazel. Bill, brownish black  
 above, lined laterally with numerous - dots; lower pale.  
 Irides brown - dark at base. Feet and claws,  
 yellow brown; Tarsi, fleshy - brown. Singing.

4091. *Melospiza fasciata fallax*. ad. Part of  
 Set No. 5. Nest in a cottonwood sapling, eight  
 feet above the ground, in an exposed position.  
 Case beside Verde River.  
 158; 207; 65; 73; cul., 12; gape, 12; tarsus, 22;  
 mte., 20; cl., 5. Colors exactly as above.

4092. *Syrnium verticalis* ♀ ad. Breeding. With young.  
 224; 394; 126; 96; nostril, 13.5; gape, 25;  
 tarsus, 18.5; mte., 21; cl., 6.

4093. *Helminthophaga luciae*. ♂ ad. 116; 183; 57; 44.  
 nostril, 7; cul., 10; gape, 11; tarsus, 17; mte., 13; cl., 3.5

4094. *Hammondbird* ♀ ad.  
 90; 112; 46; 26; culmen, 17.5; gape, 23; tarsus,  
 4.5; mte., 7.5; cl., 3. Irides, hazel. Bill, legs, feet & claws, black.

*Amphispiza saxatilis*. - One pair seen.

*Zenaidura macroura*. - Young of year on the wing.

*Ardea herodias*. - One or two seen.

*Melospiza fasciata fallax*. - Quite common  
 along the Verde and Gila.

*Sayornis nigricans*. - Several along the Verde.

June 13<sup>th</sup>, 1885. Ft. Verde, A.T.

Found several young *Melospiza* with their  
 parents on the Verde. The first I saw measured as follows.

4095. *Syrnium verticalis*. ♂ ad.  
 Length to end of bill, 164; to end of tars., 185; tail, 55

4096. *Junco cinereus*. ♂ ad.

4097. *Syrnium verticalis*. ♂ ad. One of the above  
 were of the same breed and about the same  
 size - the female (♀) placed on side under wing.

No. 193. *Castor fiber canadensis*? juv. Young of the  
 year. Total length, 357; head to eye, 35; ear,  
 64; culmen, 66; tip of ear, 88; occiput, 73;  
 anus, 270. Distance between eyes, 38; chest girth,  
 200. Length to end of hairs at base of tail, 311; ear,  
 height above crown, 16.5; above nostrils, 18;  
 greatest breadth, 22; arm, 45; forearm -  
 joint in front, 41; from acromion, 52;  
 fore foot, 41; longest claw, 9; distance  
 between outstretched fore claws, 260; leg, 62;  
 hind foot, 81; longest claw, 9;  
 "Fore leg", 86; "hind leg", 120; tail measured  
 from hair below, 83; from anus, 122; width  
 at base, 36; upper incisor, length from gums, 5;  
 width of both at base, 6; at apex, 4;  
 lower incisor, length from gums, 8; width, 6; upper  
 breadth of hind foot, 69.

No. 199. *Castor fiber canadensis* ♂ juv.  
 Total length 390; head to eye, 37; ear, 68;  
 culmen, 39; ear, 68; occiput, 64; tip of ear, 88;  
 occiput, 82; anus, 280. Distance bet. eyes, 36; chest  
 girth, 210; length to end of hairs at base of tail, 312;  
 ear, height above crown, 17; above nostrils, 16;  
 greatest breadth, 22; arm, 50; forearm - joint in  
 front, 38; from acromion, 51; fore foot, 41; longest  
 claw, 9; distance between outstretched fore claws,  
 250; leg, 64; hind foot, 78; longest claw, 10;  
 "Fore leg", 88; "hind leg", 120; tail measured from  
 hair below, 85; from anus, 127; greatest width, 32;  
 lower incisor, length from gums, 5; width of both,



39. ~~tail~~ at base, 6.5; at apex, 4.1. Lower coverts  
with some grey, 5; width, 6.5<sup>1</sup> (apex), 4.5;  
breadth of hind foot, 6.9. (6.5)

39 Vireo pusillus.

41.

42. Vireo

43. Vireo vicinior, Coues. Gray Vireo.

44. Lanius ludovicianus excubitorides (Sw.) Coues. White-rumped Shrike.

45.

46. Hirundo erythrogastra, Bodd. Barn Swallow.

47.

48. Tachycineta thalassina (Swains.) Caban. Violet-green Swallow.

49.

50. Stelgidopteryx serripennis (Aud.) Baird. Rough-winged Swallow.

51. Pyrauga ludoviciana (Wils.) Bonap. Western Tanager.

To Emma Baldwin.

Your horse is good for hauling wood,  
But he can't trot, and never should.

2692,

Now if to ride you feel inclined,  
With mind to leave all else behind,  
(You'll find that Mex is quite too lazy,  
And had better borrow my horse, Daisy.)

52.

53.

54.

55. Carpodacus frontalis (Say) Gray. House Finch.

2658, 2676, 2677.

56.

57. Astragalinus psaltria

58.

59.

60.

61. Pooecetes gramineus confinis, Baird. Western Gold Finch. 2689, 2696, 2696.

62. /

63. Zonotrichia grammica (Say) Bp. Park Finch.64. Zonotrichia

2690.



65.

66. *Spizella domestica arizonae* (Coe) Ridgw. Western Chipping Sparrow.

67. *Spizella breweri*, Cass. Brewer's Sparrow

2699, 2709,

68.

69.

70

71. *Junco*

72. *Amphispiza bilineata* (Cass) Coes. Black-throated Sparrow. 2710,

73.

74. *Peucaea*

75.

76. *Melospiza fasciata*

77.

78.

77.

81. Pipilo maculatus megalonyx (Baird) Coues. Spurred Towhee.

81. Pipilo chlorurus (Towns.) Baird. Green-tailed Towhee.

82. Pipilo fuscus mesoleucus (Baird.) Ridgw. Cañon Towhee.

83. Pipilo aberti, Baird. Abert's Towhee.

84.

85. Zamelodia melanocephala (Swains.) Coues. Black-headed Grosbeak.

86. Quiraca caerulea (Linn.) Swains. Blue Grosbeak.

87. Passerina amoena (Say) Gray. Lazuli Bunting.

88.

89. Calamospiza bicolor (Towns.) Bonap. Lark Bunting.

90.

2693, 2697, 2713,



71. *Micropus* *obscurus* (Linn.) Gmel. Dusk Catbird.

72. *Xanthocephalus icterocephalus* (Bonap.) B.S. Yellow-headed Blackbird.

2707, 2717,

73. *Agelaius phoeniceus phoeniceus*. Red and-buff-shouldered Blackbird.

2654,

74.

75. *Sturnella neglecta*, Aud. Western Meadow Lark.

2646, 2698,

76. *Icterus parisorum*, Bonap. Scott's Oriole.

77. *Icterus cucullatus*, Swains. Hooded Oriole.

78. *Icterus bullocki* (Swains.) Bp. Bullock's Oriole.

79. *Scolecophagus cyanocephalus* (Wagl.) Catani. Brewer's Blackbird.

2653, 2708

100. *Corvus corax canivorus* (Bart.) Ridgw. American Raven.

2644'

101.

102. *Lophocitta stelleri macrolopha* (Baird) Ridgw. Long-crested Jay.

2667, 2668, 2669,

103.

9104. *Aphelocoma woodhousei* (Baird) Ridgw. Woodhouse's Jay.

9105.

9106. *Cremophila alpestris*

9107

9108. *Tyrannus verticalis*, Say. Western Kingbird.

9109. *Tyrannus vociferans*, Swainson. Cassin's Kingbird.

9110.

9111. *Myiarchus cinerascens*, Lawrence. Ash-throated Flycatcher.

9112.

1113. *Sayornis sayi* (Bonap.) Baird. Say's Flycatcher-Pewee.

1114. *Sayornis nigricans* (Swainson.) Sp. Black Pewee.

1115,

1116.

2652, 2659, 2670

2721,

2711,



117. *Contopus richardsonii* (Say) Baird. Western Wood Pewee.

118. *Empidonax difficilis*, Baird. Western Yellow-bellied Flycatcher.

119. *Empidonax*

120. *Empidonax*

121.

122. *Pyrocephalus rubinus mexicanus* (Gill) Coues. Vermilion Flycatcher.

123.

124. *Trochilus alexandri*, Bourc. and Muls. Black-chinned Hummingbird.

125.

126.

127.

128.

129.

2700, 2701, 2702, 2703,

136. Myiarchus semitus, Woodh. White-throated Swift.

137.

138.

139.

140.

141. Chordeiles semitus texensis (Lawr.) Ridgw. Texas Nighthawk.

142. Picus villosus harrisi (Aud.) Allen. Harris's Woodpecker.

143.

144. Picus scalaris, Wagl. Texas Sapsucker.

145.

146. Sphyrapicus varius nuchalis, Baird. Red-naped Woodpecker.

147.

148.

2674, 2675,

2680,

2685,



143. Thryomanes bewickii (Sw.) Bp. Californian Woodpecker.

144. Geothlypis auralis mexicana (Linn.) Sw. Red-shafted Flicker.

145. Ceryle alcyon (Linn.) Boie. Belted Kingfisher.

146. Geococcyx californianus (Less.) Baird. Road-runner; Chaparral Cock. 2725,

147. Coccyzus americanus (Linn.) Bp. Yellow-billed Cuckoo.

148.

149. Fluctus flammeus americanus (Aud.) Ridgw. American Barn Owl.

150.

151.

152.

153. Scops asio

Screach Owl.

154.

155.

2661, 2662, 2663,

2673,

2725,

157, *Ammodramus yuma*, 1861, *californicus* Ridgway (Cot.)

157.

158.

159.

160.

161, *Linnaea sparganii* (Linn.) Vill. Sparrow Hawk.

162.

163.

164.

165, *Accipiter cooperi*, Bonap. Coopers Hawk.

166, *Accipiter fuscus* (Gmel.) Bp. Sharp-shinned Hawk.

167.

168.

2664,

2666, 2687,



169.

170. Buteo borealis calurus. Western Red-tail.171. Buteo abbreviatus. Zone-tailed Hawk.172. Buteo swainsoni. Swainson's Hawk.

173.

174.

175.

176.

177.

178. Zenaidura macroura (Linn.) Sp. Mourning Dove.

179.

180.

181. Lophortyx gambeli, Nutt. Gambel's Quail.

2718,

2684,

2649, 2650, 2651, 2665, 2677, 2682, 2683, 2686,

Prescott March 1<sup>st</sup> 1885.

My dear Doctor

I enclose two Skunk  
heads which I got yesterday.  
the larger one belonged to a female  
Skunk of the ordinary kind, the  
smaller one was a male & of a  
different species it was not  
more than half the size of the  
other, though it apparently had  
reached maturity, its back  
had small longitudinal black  
& white stripes with a com-  
paratively a short & rather bushy  
tail - I had previously killed  
a male Skunk & a wild cat  
but was unable to find  
their skeletons after receiving  
your letter.

Yours sincerely

George B. Cook



11 *A. xiphioides* *viridis* (Linn.) Mich. Miller  
2685, 2714, 2715, 2716.

115. *Isotria medeolae* (Linn.) Gray. Spotted Sandpiper.

116. *Bergenia corymbosa* Vill. (Linn.) Cinnamon Seal.  
2655.

*Bergenia corymbosa*

409 *Bergenia corymbosa*. ♂ ad. Beaver Creek at the Spring  
Total length, 500. Head and body, 280. Alar  
extent, 141; ear, 50; mandible, 58; culmen, 70  
tip of ear 77 (and at insertion of mandible), 572  
posterior, 185; posterior, 270; posterior, 28.  
Tarsus, 33; middle toe, 69; hind toe, 78; hind  
toe, 135; middle toe and claw 9; hind toe, 11  
Ear, height above eye, 17; meatus, 19  
Posterior width, 20. Tail from base of hairs  
to end vertebrae, 145; hairs, 203. Length of  
hind toe (hair insertion), and tail, 20.  
Length of upper mandible 10; lower, 32.

4078 *Bergenia corymbosa*. ♀ ad. Beaver Creek at the Spring  
Total length, 478. Head and body, 250. Alar  
extent, 150; ear, 23; mandible, 54; culmen, 20; post, 13; palm, 24  
tarsus, 32; middle toe, 18.5; claw, 5.

4079 *Bergenia corymbosa*. ♀ ad.  
151; 219; 69; 55; cul., 21; post., 13.5; palm, 24.5  
Tarsus, 19.5; Middle toe and claw, 18; claw, 4.5.

4100. *Cathartes mexicanus conspersus* ♀ juv.

4101. *Cathartes mexicanus conspersus* ♂ juv.

4102. *Cathartes mexicanus conspersus* ♂ ad.

148; 188; 60; 55; culmen, 22; post., 16; palm, 25;  
Tarsus, 18.5; middle toe, 17; claw, 5. Parent of Nos. 4100  
and 4101, which latter are in her collection  
Linnage, although still with parent.





nest on a large pile of sticks, twigs and rubbish. The old bird was dia not approach the nest, and I was obliged to conceal myself behind some rocks. For quite a long time before the parent returned and angustated let the entrance to the nest, where I sat, per.

*Capodacus frontalis*. - A nest found (June 18<sup>th</sup>) on a ledge in the cañon just where a Say's Flycatcher would build. Two eggs; fresh.

*Empidonax* *sayi*. - A nest and two eggs found in the cañon on a shelf of limestone. The eggs were old and their contents dry. The young are now flying.

*Canis occidentalis*. - A large "Timber Wolf" was seen in the cañon across the Verde. It hung its head and trotted swiftly up the steep side, hill climbing step, clidex with ease and finally disappeared after pausing a moment at the top upon a rock. A few of these large Wolves are occasionally seen between the Past and Morris's ranch on Clear Creek. As young as there have been seen together. This one was gaunt and emaciated.

June 19<sup>th</sup> 1885. From Verde to Fossil

4103. *Urubitinga anthracina* ♀ ad. Fossil Creek at the forks. 1355; 1315; 413; 245; cul. - cere, 40; cere, 15; cul. 28; cere, 45; cere, 91; cul. 62; cere, 22; inner claw, 25; outer-cl., 17; hind toe, 27. Irides, reddish hazel. Cere, bare skin above and in front of eyes, along sides, and base of both mandibles orange-yellow. Bill plumbeous black; orange at extreme base. Tarsi and feet yellow; claws plumbeous-black. Stomach contained putrid matter.

4104 *Urubitinga anthracina* ♂ juv (pullus). Young taken from nest of which No. 4103 is parent. Irides hazel. Bill plumbeous-black. Tarsi and feet yellow. Claws plumbeous-black. Stomach contained putrid matter.

- June 20<sup>th</sup> 1885. Fossil Creek 34<sup>th</sup> St  
Verde, Ariz. (25 miles) by way of Smith's ranch.  
4105. *Urubitinga anthracina* ♀ ad. Fossil Creek.  
370; 625; 205; 150; cul. - cere, 17; cere, 10; gape, 24; tarsus, 26; cul. 37; cl. 9.5.  
Irides, light hazel. Cere, bare skin above and in front of eyes, along sides, and base of both mandibles orange-yellow. Bill plumbeous black; orange at extreme base. Tarsi and feet yellow; claws plumbeous-black. Stomach contained putrid matter.  
4106. *Urubitinga anthracina* ♀ ad. Fossil Creek.  
208; 315; 98; 84; cul. 19; cere, 19; tarsus 23; cul. 23; cl. 7. Irides, hazel. Cere, bare skin above and in front of eyes, along sides, and base of both mandibles orange-yellow. Bill plumbeous black; orange at extreme base. Tarsi and feet yellow; claws plumbeous-black. Stomach contained putrid matter.  
4107. *Urubitinga anthracina* ♂ ad. Fossil Creek.  
182; 300; 107; 75; cul. 15; cere, 10; gape, 17.5; tarsus, 21; cul. 17; cl. 5; cere, 15.

On June 19<sup>th</sup>, went with Mr. Baird and Mr. Smith to visit Fossil Creek, with Mr. Lang, a miner and an escort of two soldiers. We carried some provisions and mining implements, packed upon a mule and two horses. We found the trail to the cañon without difficulty; but when we were at the bottom, a fork in the road led to the left, which we followed. The stream and creek of Fossil Creek, with banks of which were a few houses, mines, buildings, and a mill, Bear, deer, raccoons and beavers.

A pair of *Urubitinga* Hawks (*Urubitinga anthracina*) were perching at the forks of the stream close to the place at which we had pitched our camp. Their loudly whistled cry is different from that of any bird of prey with which I am acquainted, but is difficult to describe accurately. It is rendered with great power and force. The parent circled about us for a few times, then alighted on some tall pines upon the hillside, where she continued to cry vehemently until I essayed to force my way through the thick scrub oak towards them, when both birds flew north and I returned to a tall pine tree down the





*Tamias asiaticus torralis* found at *Verde*, near *Wingfield* and near the *Saw-log*, and very abundant in *Fossil Creek Cañon*.  
*Spermophilus grammurus grammurus*. Abundant in *Fossil Creek Cañon*.

*Neotoma floridana*. - All the way. Large heaps of sticks and cordons heaped around trunks of juniper trees.

*Ononis* *taipoides* *subtrivialis*. Everywhere where there is any loose soil.

Signs of the following species were found:

*Canis lupus*, *Canis latrans*, *Procyon hernandezii*, *Urocyon amercanus*, *Canis anaerotis*, and *Leontideus canadensis*, all in *Fossil Creek Cañon*.

The Birds seen were: *Tyrannus polyglottus* - probably the most numerous species in Arizona for the reason that, although not found in large numbers in any one locality, the species is spread widely over all parts of the territory, even those sections that are most dry and barren. *Phainopepla nitens*. - Common. Several pairs seen down in *Fossil Creek Cañon*.

*Polioptila caerulea*. - Found the first in some cedars a few miles to the side of the *Saw-log*. A male was shot but was spoiled before I reached *Verde*.

*Lophophanes inornatus*. In cedars.

*Polioptila plumbeus*. Found near the *Saw-log* in families with parents, also in *Fossil Creek*.

*Salpinctes obsoletus*. - In Rocks everywhere.

*Catherpes mexicanus conspersus*. - In *Fossil Creek* among the cliff dwellings in the limestone.

*Dendroica aestiva*. In Cañon of *Fossil Creek*.

*Icteria spurius longicauda*. - Nest found in scrub oaks on fork of *Fossil Creek* 2 young & 2 eggs. The species is abundant in *Fossil Creek Cañon*.

*Vireo pusillus*. - Breeding in *Fossil Creek*.

*Lanius ludovicianus excubitorides*.

*Petrochelidon lunifrons*. - Abundant in the massive cliffs of *Fossil Creek*.

*Carpodacus frontalis*. Abundant in *Fossil Creek*.

*Astragalinus psaltria*. - " " " "

*Chondestes grammacus*. - Breeding abundantly from the *Saw-log* to *Fossil Creek*. Young with striped breast. Old song well in top of cedars.

*Spizella breweri*. - A few all the way.

*Amphispiza bilineata*. - Everywhere.

*Perisoreus inornatus* (*boucardi*?). - Found every where in cedars and scrub oaks. Singing on the cedars.

*Pipilo maculatus megalonyx*. - Singing with *Pipilo fuscus mesoleucus*. - In *Fossil Creek*.

*Zamelodia melanocephala*. - Singing in Cañon of *Fossil Creek*.

*Protonotaria ater obscurus*. - Everywhere along the route in small companies.

*Sturnella neglecta*. - Singing along the way from *Saw-log* to *Fossil Cañon*. Sit on top of junipers and sing deliciously.

*Icteria pansorum*. - Only in *Fossil Creek*.

*Aphelocoma woodhousei*. - First seen a mile to the side of the *Saw-log*. In *Fossil Creek*, also.

*Eremophila alpestris chrysolaema*. - In suitable places all the way. Singing.

*Tyrannus vociferans*. Abundant, and the only *Tyrannus* seen in *Fossil Creek*.

*Tyrannus verticalis*.

*Myiarchus cinerascens*. - Scarce.

*Sayornis sayi*.

*Sayornis nigricans*. Abundant and breeding in *Fossil Creek*.

*Geothlypis alexandris* and probably several other species were seen on the way and at *Fossil Creek*.

*Cypselus saxatilis*. - A few seen flying about *Fossil Creek*.

*Phalaenoptilus nuttalli*. - Singing all night in *Fossil Creek Cañon*.

*Chordeiles acutifrons texensis*. - Common.

*Picus scalaris*. - In *Fossil Creek*.

*Buteo borealis calurus*. One shot with carbine.  
*Urubitinga anthracina*. One pair breeding in Fossil Creek  
*Trinunculus shufeldti*.  
*Columba fasciata*. Three sat in dead pine on  
 steep bank of Fossil cr. I climbed up and shot one,  
 but it escaped wounded into some rocks. Six were  
 seen and I searched in vain for their nests.  
*Zenaidura macroura* - Young flying  
*Agelaius gambeli*. Numerous in Fossil cañon.  
*Cathartes aura* - A few seen.  
*Ardea herodias*. - Several on Clear Creek.  
*Oxyechus vociferus*. - On Clear Creek and the Verde.

June 20<sup>th</sup>, 1885. Fossil Creek, A.T.  
 Arose at daybreak. I hunted around the forks of  
 Fossil Creek for the nests of the Black-headed  
 Grosbeaks. Hummers were very numerous, but  
 I shot none. A small flycatcher was seen  
 and heard, but I could not secure them, although  
 they were notable new to me. A bird making  
 a note like the Eastern Redstart was also heard  
 but could not be secured. We retraced our  
 steps to the bifurcation of the trail and in so  
 doing I secured my wounded *Columba fasciata*  
 and lost a shoe off my horse. We went down  
 the trail to Daniel's ranch where we had intended  
 to go yesterday. The day was immensely hot. Daniel  
 was not at home. We saw the new *Orelin*  
 along the stream there and collected some  
 specimens of the exquisite Maidenhair (*Adiantum*  
*Capillus-Veneris*) which hangs luxuriantly down  
 over the stream, lining the white limestone rocks.  
 Blackberries were ripe and we ate some of them.  
 Oak Squirrels were numerous. The exertion  
 of retracing our steps in the cañon in the intense  
 heat was severe. At the top we found a number  
 (*Coarctus macrotis*), three lying & one standing  
 beneath a juniper tree. Shot Rattlesnake  
*Crotalus scorpions* in flocks in the cliffs of Fossil Cr.

June 25<sup>th</sup>, 1885. Ft. Verde, A.T.  
*Tyrannus verticalis*. - One <sup>fearlessly</sup> attacked a female  
 Sparrow Hawk that alighted near its nest,  
 and drove it clear across the parade-ground  
 uttering loud cries and dashing impetuously at  
 it. Later in the day the Hawk returned; and  
 both flycatcher flew at her and drove her  
 out of their district.

4,108. *Accipiter cooperi*. ♀ juv. Shot in nest; still  
 unable to fly. Nest Bulky; built on the  
 horizontal branch of a very tall cottonwood  
 about 50 feet from the ground. The parent  
 and two young were successively shot before  
 one of them fell. The nest I was unable to  
 secure, as the nest was entirely out of reach.  
 The locality was a deep cañon on Walnut  
 Creek a stream flowing from the Sierrita  
 into the Verde River, and the locality a mile  
 or two from the mouth of the Creek. Stomach  
 contained flesh of Gambel's Quail.

June 30<sup>th</sup>, 1885  
 5,20, A. *Myiophobus myiophobus* ♀ ad. Total length, 750  
 Tail from root to end hairs, 220; vertebrae, 330; Nose  
 to eye, 33; ear, 59; meatus, 63; occiput, 86;  
 tip of ear, 91; end of outstretched hind foot (claws)  
 175. Ears, height above crown, 17; meatus, 29  
 Greatest width, 38. Manus, 56; pes, 69; fore  
 leg, 114; hind leg, 153. Claws of fore  
 foot from within outwards, 11, 18, 19, 14; of hind foot, 9, 11,  
 10, 12, 18.5. Distance between <sup>superficial</sup> fore claws (tip) across  
 shoulders, 350. Chest girth, 230. Distance  
 between eyes, 25. Man. nose, 15; ear, 60; occiput, 86.  
 She was, or recently had been, mated  
 as the secondary glands were developed and  
 contained milk. She is skunk-bait killed  
 a number of young chickens in (a) kitchen  
 yard and broken up several boards of  
 lumber & fences.



July 5<sup>th</sup> Cherry Creek, A.T.4109 *Geococcyx californianus*. ♀ pullus. Young, hatching.

Note. The Roadrunner frequently deposits its eggs slowly, sitting on those first laid and occasionally adding to the nest itself as well as to its contents like the Cuckoos (*Coccyzus*). Thus in the above nest No. 41 was hatched two days before any of the others and an egg taken out of the nest was preserved, while the remaining eggs slowly hatched in succession at intervals of several days, a day or two. Egg measures  $33 \times 42$ .

July 6<sup>th</sup>, 1885. Ft. Verde, A.T.4110 *Scops asio trichopsis* ♀ juv. Young of the year or adult moulting. The tail is represented by twelve quill shafts 10 to 15 mm. in length. The plumage resembles new feathers of the adult, but is very pinfeathery and incomplete.

Length to end of tail, 151. Alar expanse, 588. Wing, 180. Tail, not grown out, 12. Cul. and cere, 19. cere, 9. cul. 14. gape, 22.5. tars 35. into 29. cl. 12. Irides, yellow. Bill, bluish-grey, pointed with horn-color. On dissection this specimen proved to be an adult bird, its organs showing unmistakable signs of maturity. It sat in a cottonwood tree beside the river. I was returning from attending a funeral, and had no gun. I asked the Steward if he had a pistol and found he had none. Then I got off my horse and struck it with a stick, and secured the specimen. Stomach contained grasshoppers.

4111. *Falco naevius*. ♂ pullus. Young, hatching taken from nest June 3<sup>rd</sup>, 1885 and kept alive until the 7<sup>th</sup>.

4112. *Falco peregrinus naevius*. ♀ pullus. Young, hatching taken from nest June 3<sup>rd</sup>, 1885, and kept alive until June 17<sup>th</sup>, 1885. No. 4111 was not half the size of the other and the young when left together until the little one was over and had to be killed. See description on next page.

July 7<sup>th</sup>, 1885. Ft. Verde, A.T.

No. 221. *Spermophilus grammurus grammurus*. ♂ ad. Total length, 25.37. <sup>to tip of ear</sup> 13.0. ear, 5.30. ornatus, 5.75. tip of ear, 3.77. occiput, 2.58. end of outstretched hind leg, 14.00. Tail from root to end of scabrous, 2.38. length of hairs, 12.00. breadth of, 4.12. Breadth between eyes, 1.63. Ears, height above crown, 1.9. above nostrils, 1.25. greatest breadth, 2.2. chest girth, 1.84. distance between outstretched fore claws, 12.82. longest fore claw, 3.72. hind, 3.1. longest whisker, 1.68. Head and body, 12.85. Manus, 4.13. Pes, 2.60. Fore leg, 8.5. Hind leg, 11.11. Caught by Valentine under my Post Hospital, where a number of them <sup>live</sup> since I first came here. Description of this nestings of *Falco* *naevius* *naevius* taken from nest in a cliff on Beaver creek in the Spring of June, 1885.

The nestling place was a limestone sill on the left bank of Beaver creek, a mile or two from its confluence with the Verde River. The parents were feeding in its defense, and one of them was constantly scolded but scolded. The remaining parent was left to care for the two young that were left from the hatching of four young ones. Some large fragments of shell found along the ledge with the young were of about the same coloring as the eggs of *Falco peregrinus* in my collection, collected in Grandd by Herrle and Dr. Brown, of Coahuila. There were no pieces of a nest. The young when found were lying upon the limestone ledge upon a narrow shelf, about 100 feet from the bottom of the cliff and a little way in distance from the top. A narrow strip of limestone and a little grassy rock were visible, so close to the young and perhaps prevented them from falling. They cried lustily when I got near them crying with much trepidation along the narrow ledge to which I got access through a little crevice of rock in the cliff. I could see their hind legs sticking out from

Height of youngest specimen sitting up

I took the young birds to see a doctor, and  
 could not find the way home, so took them to a  
 "family" house, "Landing". They were much  
 interested in the birds, but the doctor was  
 opposed to my taking them. I took out the  
 youngest and largest specimen, between which the  
 two birds had been - it lay to 2 weeks difference in  
 age. They ate food readily and were very  
 sociable. The older one would seize the meat from  
 the other's mouth and bite its bill and face  
 fairly, whenever it opened its mouth. They did  
 not seem to be related, and once when the accidentals  
 got together the little one was so alarmed that it  
 had to be killed. The plumage of the older bird was  
 a green above, but it was not other than ~~green~~  
 of red it ~~is~~, and it also died, when its  
 wings were just expanding at the tip.

They called for food incessantly. The  
 oldest had two notes, a low one like chuckling -  
 "chuck-chuck-chuck" and a loud one like the cry  
 of the adult bird. The height of the youngest specimen  
 when sitting up was only 95 mm. as shown on  
 the margin. Eyes, black. Bill, flesh-color. Ires, with a  
 pale greenish tinge, bare skin around eye, flesh-color.  
 Tinged with blue. Tarsus and feet, pinkish flesh-color, the  
 claws just beginning to turn with brown.

Youngest specimen - Eyes, black. Bill, flesh-color,  
 its a bluish cast. Bare skin around eye, pale bluish.  
 Tarsus and feet, flesh-color strongly tinged with  
 greenish-yellow. The feet slightly plumbeous above  
 and below with. Claws, plumbeous.

Both specimens are clothed with pure white  
 down, the cells of oldest just sprouting  
 and body feathers showing symptoms of  
 coming out.

Taken at Port Louis, 11 April 1885  
 Port Louis, 11 April 1885.



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... who has been suffering now for nearly 15 years from an ulcerated leg, a  
 to prevent her sleeping. About eight years ago I persuaded her to try a  
 taking a dose regularly *every night ever since*, without any of the bad syn-  
 opiate, but on the contrary, is now, although so aged, in better health than  
 cancer of the face and neck (a very bad case): here there was an inte-  
 opium, morphia, chloral, and every other sedative which could be thought  
 the result has been an entire cessation of the pain, which has not yet retur-  
 weeks. I may mention that in the first case it has not been necessary to  
 which I consider another great advantage NEPENTHE possesses over other

NEPENTHE may be used with perfect safety in every case where it  
 which it is prepared, it is deprived of all constituents which render the Tin-  
 instances wholly inadmissible. It is also of uniform strength, and in this  
 NEPENTHE does not produce headache, stupor, giddi-  
 energy, prostration of strength, nor constipation, but induces a  
 Dose: The same as that of Tinctura C

Double-Strength Nepenthe for subcutaneous

# CALCUTTA

THREE PRIZE MEDALS Award

GOLD MEDAL (the Highest Award) for Drugs, Ch

with yellowish

- July 9<sup>th</sup> 1885. Fort Verde, A.T.
4113. Geothlypis trichas occidentalis. ♂ ad. In full song, as were others of its species. 138; 188; 57; 57; cul, 13; nost., 8; gape, 15; tarsus, 19; mte, 18; Cl, 5. Irides, hazel. Bill, brownish-black. Tarsi fleshy-brown. Feet and claws, brown. In moon but otherwise perfect plumage.
4114. Ardea herodias ♂ ad.

Length to end of tail, 1200; to end of claw, 1550. Wing, 515; alar expanse 1875. Tail, 195; culmen, 144; nostril, 118; gape, 184; height of bill opposite nostrils, 29; width at same place, 20. Tip of bill to eye center of pupil, 180; to occiput, 238. Bare tibia, 120; tarsus, 185; mte, 125. Cl., 16; inner toe and claw 88; cl. 15; outer toe & cl. 98; cl., 12; hind toe & cl., 66; cl. 20.

Girth of tibio-tarsal joint, 69; at middle of bare part of tibia, 37; at middle of tarsus 33. Median occipital plumes, 115; the longest 222. Longest neck plumes 225. Longest interscapulars, 275.

Irides, yellow. Bare skin around eye and angle of mouth yellowish-green. An elongated patch of bright yellow at base of bill on either side about midway between nostril and eye, and a small round spot of the same color above it. The bill is blackish at base shading to greenish olive at tip. Bill, greenish-yellow laterally, deepening to orange-yellow towards the junction of the two ramus and thence to tip. Legs, with bare tibiae dusky olive-brown, with the inner side above tibio-tarsal joint pale greenish-yellow, and a pale streak of the same extending down the outer aspect about half-way. Tarsi, dusky brownish olive except the under surface of heel, which is yellow. The feet are the same color above, yellow beneath.

Claws of anterior toes dark plumbeous indistinctly lined with brown-color above; but the claw of middle is strongly curved and <sup>broadly</sup> uned above and pointed with yellowish horn-color. Shot on the Verde River.





slow back and I fired with barrels at her as she passed, but without effect, and left her in possession of the cliffs and the one remaining offspring.

*Leioceyx californianus*. - Two the mail-carrier brought me two eggs of the Roadrunner from a nest containing three eggs on Ash Creek near Hudson's ~~habitation~~. They are white and measure respectively: -  $31 \times 38.5$ ;  $31 \times 39$

*Black-collared Lizard* ad. This large and beautiful lizard was caught in a pile of stones near the Hospital. Length 1 foot (in m) from tip of nose to end of tail. Light green on belly, black bluish-green <sup>around</sup> throat. Two black rings around neck. Tail, light gray, speckled with dark brown. Yellow on upper lip, chin and above eyes. Bluish-green inside of legs. Dark brown, speckled with yellow and striped with gray on the back and outside of legs.

July 11<sup>th</sup> Ft Verde, A. T.

No. 223. *Mephitis mephitis* ♂ juv.

Total length, 430. Head and body, . . . Tail, from root to end of vertebrae, 165; to end of hairs, 230; greatest breadth, 180. Nose to anterior canthus of eye, 27; to center of pupil, 31; to ear, 46; meatus, 49; occiput 67; tip of ear, 66; end of outstretched hind leg, 300. Ears, height above crown, 12; meatus, 29; greatest breadth, 18. Manus, 37; Pes, 48; fore leg, 68; hind leg, 90. Longest fore claw, 10; hind claw, 7. Longest phalanx, 30; least girth, 116. Between eyes, 23. Distance between <sup>tips of</sup> claws outstretched, across shoulders, 218.

July 16<sup>th</sup> Fort Verde, A. T.

4116. *Lophortyx gambeli* ♂ pullus. Just hatched. Unable to fly. The head plume is represented by a small tuft of down.
4117. *Lophortyx gambeli* ♂ pullus. Just able to fly. No trace of black throat. Head plume well indicated.
4118. *Leioceyx californianus*. ♂ pullus. Nestling nearly able to fly. Irides deep gray. Bill,

plumbeous-black. Bare skin around eye dusky, plumbeous, becoming pale orange posteriorly. Tarsus and feet, bluish-gray. Claws, dusky. Each feather bears on its summit, a white hair, like those on the <sup>same</sup> otherwise naked specimen (No. 4109) taken from this nest on July 5<sup>th</sup>, 1885. Locality, Cherry Creek, A. T. Brought to me by Joe the buckboard driver.

July 14<sup>th</sup> Ft Verde, A. T.

Rode 6 miles to Parson's Barometer. Hot. Thermometer  $98^{\circ} \text{F}$ , and  $108^{\circ} \text{F}$  when I returned. A slight breeze in the river-bottom. Doves are raising 2<sup>nd</sup> brood. Dozens of them were seen sitting on eggs or young in the cottonwoods. One nest in some scrub on the ground contained one <sup>fresh</sup> egg, showing that some are still laying.

Blue Grosbeaks, Bullocks and Hooded Orioles, Great Blue Herons, Abert's Towhees, Green backed Goldfinches, Song, Pewee, Black Pewee, Cassins and Western Kingbirds, Little Flycatcher, Killdeer, Sharp-shinned, Black-throated Sparrow House Finch, Lark and Rough-winged Swallows, Quails and Lark Finches were the most abundant species of birds noticed. The Lark finches seemed particularly affected by the intolerably hot weather. When seen their wings were ~~distended~~ half open and hanging down, and mouth wide open, gasping for breath. The Doves do not appear to experience any discomfort, although the heat from the white sand of the River-bed where their nest is like the breath from a furnace.

July 18<sup>th</sup> Ft Verde, Arizona.

4119. *Totanus semipalmatus*. ♀ ad. Length to end of toes, 485. 402; 770; 228; 96; culmen 60; bill grooved, 40; gape, 68; bare tibia 42; tarsus, 73; ante, 72; cl., 6.5; inner web, 7.5; outer web, 11; inner cl., 5.5; outer cl., 5; hind toe & cl., 14; cl., 4. Irides, hazel. Bill purplish-gray at base, becoming black for terminal one-half. Bare tibiae, tarsi & feet, bluish-gray; claws, black. Stomach contained a mass of beetles & shells.



4120. *Tringoides macularius* ♂ ad. Length 161; wing, 194; 329; 105; 53; cul., 24; gape, 27; tibia, 12; tarsus, 23; mte. 22; cl., 4. Irides, hazel. Bill, brownish-yellow at base of mandible, shading to black terminally; upper mandible, black, with brownish tinge at base. Bare tibiae, tarsi and feet, greenish-yellow, tinged with gray; claws, dusky.

4121. *Tringoides macularius* pullus. } No. 3120 the parent  
4122. *Tringoides macularius* pullus. } unable to fly.

These birds were one family. The young were still far from able to fly, but ran very swiftly. The parent flew and dropped at my foot, when I captured one of the minute offspring, which was piping loudly, and fluttered just before me for at least an hundred yards. I followed to see how far ~~it~~ would try to lead me on, and shot ~~it~~ when she flew. It beat the sand with its wings, and appeared to be hopelessly crippled. Not skinned.

4123. *Tringoides macularius* ♂ juv. Barely able to fly a little. The quills of hind measure 2.8, excluders of the filamentous prolongations. Wing from carpal joint 77. Irides, hazel. Bill, plumbeous, fleshy at base of mandible. Bare tibiae tarsi and feet greenish-yellow, lighter and more yellow than adult. Claws, blackish.

4124. *Tringoides macularius* ♂ juv. Like the above (No. 4123) and belonged to same brood. The head and neck in both are still in down, except a streak of feathers in the centre of the crown, where the first appear on these parts. The body is feathered except the <sup>broad</sup> rump which remains down and streaked medially with black. Both have a black mark extending from the forehead through the eye to the occiput and a dorsal black stripe from the patch of feathers covering scapula to the back. One was shot. The other was followed on horseback until fatigued when it was flushed but fell into the Verde River, where it dived splendidly and at

- length swam to the shore and was caught.  
4125. *Tringoides macularius*. ♀ juv. Young of the year. Able to fly well. Bill feathered save rump, upper part of neck and head (except crown and which are feathered). Irides, hazel. Bill scarcely differing in size or coloring from No. 3120 ad. The bare tibiae, tarsi and feet, greenish-yellow, barely tinged with gray; claws, blackish.

4126. *Recurvirostra americana* ♀ juv. 1 full first plumage. Irides, brown. Bill, blue-black. Tarsi, feet and claw, bluish-gray.  
313; 505; 156; 114; cul., 30; gape, 41; tarsus, 29; mte., 34; cl., 11.

4127. *Coccyzus americanus* ♂ ad.  
312; 453; 148; 167; cul., 29; gape, 34; tars., 27; mte., 27; cl., 7.

4128. *Dendroica aestiva*. ♂ ad.  
130; 200; 66; 51; wing, 8; gape, 14; tars., 18; mte., 15; cl., 4.5. In full song.

4129. *Buteo swainsoni* ♀ ad.  
540; 1380; 440; 245; cul. + cere, 34; cere, 13; cul., 24; gape, 40; tars., 78; mte., 61; cl., 20. Irides hazel. Cere, bare skin around eye, and along gap, yellow. Tarsi and feet, <sup>light</sup> orange-yellow. Claws, plumbeous-black. Bill, bluish at base, shading to black terminally. Stomach contained several kinds of fly larvae.

July 20th Ft. Verde, A. T.

224. *Tamias harrisi*. ♀ juv. Half-grown. No measurements were taken.

July 22nd.

4128. *Coccyzus americanus* ♂ ad. In full call.  
307; 435; 152; 157; cul., 30; gape, 35; tars., 27; mte., 27; cl., 8.

Note. - Yellow-billed Cuckoos are numerous now, in cottonwoods along the Verde River. To-day their notes were heard continually.

No. 225. *Fiber gibethicus* ♂ ad.

Total length, 495 Head and body, 285  
Tail from root to end vertebrae, 197; hairs, 210  
Ears, height above skull, 19; meatus, 21;  
greatest breadth, 20. Nose to eye, 33; ear,  
36; meatus, 54; tip of ear 84; occiput, 71  
end of outstretched hind claws, 378. Distance  
between eyes, 25 Chest girth, 170.  
Manus, 31 Pes, 69; fore leg, 75  
hind leg, 120 longest whiskers, 60 longest  
fore claw, 9 longest hind claw 10 Distance  
between claws (tips) across shoulders, 225.

The os penis was highly developed and the animal  
tough, the bones hard and cartilaginous extremities  
ossified, which characters, together with the  
teeth indicate a very old specimen.

It was first seen under water and was watching  
me. I killed it with No. 12 shot just as it emerged  
on the edge of the bank of the Verde River.

No. 4/29. *Oxyechus vociferus*. ♂ pullus in down; unable to  
fly. The parent made a great outcry. Only two  
young were seen. The other one disappeared like magic  
when I stooped to pick this one up. Other young  
of the year were seen flying as well as their parents,  
who still guarded and watched over them.

Wides, very dark hazel. Eyelid, orange-red  
Bill plumbeous-black. Gape & feet ~~orange~~ ~~plumbeous~~  
flesh color. tinged with greenish gray, especially  
the joints. Claws dusky plumbeous.

No. 4/30 *Tringoides macularius*. ♂ pullus. Young barely  
able to fly a yard or two. Doubtless the progeny  
of No. 4/20, as it was found in the same spot.  
Wides, very dark hazel. Bill dusky plumbeous,  
with a shade of olive. Legs & feet dull greenish-yellow.  
Claws plumbeous.

*Ardea herodias*. - Not common, to  
be seen at once.

*Tringoides macularius*. - Young of year  
seen flying as well as old birds.

*Totanus flavipes*. - One seen and shot  
at, but lost.

*Pyrauga ludoviciana*. An adult male  
seen in 1885 near the Verde River.

*Goniophila melanoccephala*. A female  
seen beside the Verde.

*Pyrocephalus rubinus mexicanus*. (In 1885)

Note (July 18<sup>th</sup>, 1885. Ft Verde, Arizona). - Great  
Blue Herons were quite numerous.

A Solitary Tattler (*Rhyacophilus solitarius*) was  
seen. The young of *Tringoides macularius* were  
in small flocks. Black Flycatchers (*Empidonax  
nigricans*) were abundant along the Verde.

A *Gyula chrysaethus canadensis*. - (In Eng. at  
Verde) beside the water on a ~~very~~ low, stony point.

It barely showed a little white on its tail. I got  
within gunshot of it, but did not fire as my  
shot were too small.

July 24<sup>th</sup> 1885.

*Agostomus cuppa* ♂ ad. Entire dorsal-blended brown.  
Unmottled sucker. Entire ventral surface  
orange yellow, the pectoral & ventral fins very  
slightly dusky, their dorsum marked basally  
with dusky olive. Iris yellow, greenish

Lab. 40 olive granulation. Lower third of head  
Dorsal 14 including end of snout, orange yellow in  
Anus 7 strong contrast with the flesh colored mouth.  
Ventral 10 Sides, salmon color, granulated with dusky  
Pectoral 16 olive. Dorsum, dark olive brown, including  
Caudal 17 tip of head, the anterior ridge of spine (hump) pale olive.

Gills, ~~the~~ flesh color, the yellow of ventral  
surface extending and blending with

24. The olive of the dorsum on the side of  
the head posteriorly. Dorsal fin, olivaceous.  
Anal fin, orange yellow indistinctly marked  
with dusky. Caudal yellowish olive. Peritoneum  
black. Total length, 490. Tr Caudal 435  
Tip of snout to nostril, 44; eye, 54; middle of head



60; width of orbit, 12; depth 9.5, pupil, 4.8  
snout to preopercle 85; opercle, 115; distance  
between orbits, 42. Length of caudal fin 80  
Dorsal fin: height anteriorly, 56; posteriorly 29  
width at base 77; upper edge antapread 80  
caudal fork 37 (Lockington, Proc. Acad. Nat. Sci. Phila. 1880.  
Jordan & Gilbert's Synopsis p. 129.

July 25<sup>th</sup> Ft. Verde, Ariz.

Went down the River as far as Bonanza, where  
crossing, following the edge of the stream all the  
way; returning followed the sluice.

Saw a dozen *Buteo borealis* (*Buteo borealis*)  
seen. One family of young of the year  
with down still on their heads. I shot  
an old, and a young of them, and an older  
bird of the year.

*Ardea herodias* - common. A young of the year shot  
*Exochus vociferus* - as many as 15 seen together.  
They were mostly young of the year.

*Myioides macularius* - a number seen.

*Fulca americana* - I saw some swimming  
around an island in the river. It swam close  
to the farther shore and hid under some overhanging  
grape-vines.

Two Muskraids (*Fiber zibethicus*) seen on the sluice.  
The object of my trip was to shoot a white Heron  
which Mr. Jordan told me stayed around his dam  
all day yesterday and the day before; but it was  
not there to-day. (Cleome)

The yellow-cake plants are very rank in places  
down the river. I rode through a large patch that  
were higher than my head when riding. I did  
not attempt to shoot any *Hirundo* birds; but  
dozens of them were seen in every hatch of water.  
*Pyrocephalus rubinus mexicanus*. A number  
seen. They like to sit beside the water on dry  
twigs just as *Sayornis nigricans* does.

Young families of Yellow-throats, Song-spired Chats,  
Summer Yellow Birds, Lazuli Finches, Blue Grosbeaks

White-throats, Lazuli Finches, Song Sparrows, House  
Finch, and Field Sparrows were seen; and  
many other birds were abundant.

4131. *Pyrocephalus rubinus mexicanus*. Im.  
156; 270; 55; 65; cul, 14; nost, 10; gape, 19; tars.  
17.5; mte, 15; cl., 5. (C. mounted. Im.)

4132. *Pyrocephalus rubinus mexicanus*. Fed. Mate of 4131.  
157; 260; 79; 62; cul, 14; nost, 10; gape, 19; tars.  
17.5; mte, 16; cl., 5.

4133. *Buteo borealis* & ad. Young of the year  
with parent (No. 4134). Irides, yellow. Bare skin  
on face, greenish-yellow. Bill, yellow, tinged with olive,  
strongly above, and becomes dusky towards tip.  
Bare tibiae, tarsi & feet greenish-yellow, the latter  
yellow beneath. Feathers of crown  
tipped with down. Family still together.  
Length to end of tars, 600; 470; 704; 190; 68;  
cul, 54; gape, 75; bare tib., 27; tarsus, 57;  
mte, 61; cl. 9. Claws, horn-color.

4134. *Buteo borealis* & ad. Parent of No. 4133.  
Length to end of tars, 615; 500; 715; 197; 76; cul, 65;  
gape, 79; bare tib., 23; tars., 52; mte, 58; cl., 10.  
Irides, deep yellow. Bare skin of face, greenish-yellow  
yellowish anteriorly. Bill with dorsum of mandible and  
edge of mandible (its basal third), brownish-black; max-  
illa and edge of maxilla from the basal two-thirds,  
yellow. Bare white tarsi & dorsum of feet, greenish-  
yellow; feet orange-yellow beneath.

4135. *Buteo borealis* & ad. Young of year. Older  
than No. 4133. Irides, yellow. Bare skin of face  
greenish-yellow. Bill brownish-black above and on  
edge of basal third of mandible. Mandible and  
edge of maxilla pale greenish yellow tinged with  
pale brown. Bare tibiae to below knee-joints,  
pale sage green. Front of tarsi & dorsum of tarsal  
greenish olive; tarsi more yellowish posteriorly.  
Feet yellow beneath. Claws, pure olive. The soft  
parts are much darker than No. 4133. There is no  
down of feathers of crown. Length to end of tars, 580;

460; 700; 193; 70; cul., 56; gape, 74; bare tib., 21; tarsus, 50; mte., 55; cl., 10.

4136 *Ardea herodias* ♀ ad. <sup>Young of year</sup>  
Length to end of toes, 1420; <sup>1110</sup>; 1770. 475; cul., 133; nostril, 105; gape, 149; height of bill opposite nostril, 25; width at same place, 18; tip of bill to center of pupil of eye, 168; to occiput, 220; bare tibia, 95; tarsus, 171; mte., 120; cl., 16; inner toe & cl., 89; cl., 14; outer toe and claw, 98; cl., 12; hallux & cl., 63; cl., 20; girth of tibio tarsal joint, 67; at middle of bare part of tibia 38; at middle of tarsus, 32. Irides, orange yellow. Bare skin around face, <sup>bluish</sup>, <sup>elevated</sup> patch of greenish yellow toward base of bill and another above eye anteriorly. The bill is blackish at base of mandible shading to olive towards tip; mandible greenish-yellow laterally, deep orange yellow towards the junction of the two ramus. The latter color extending to extremity of mandible.

Bare tibia above greenish-yellow, with a couple of rows of dark scutellae behind. Tibio-tarsal joint, tarsi & dorsum of feet, dusky, olive-brown. The feet pale yellow below. Claws, dusky-plumbeous. Head plumes worn - some threads.

✓ Patch of reddish-brown feathers surrounds the vent.

No. 226 *Mephitis mephitis* ♀ juv.

Total length, 590; head and body, 255; tail from root to end of vert., 228; ears, 335; <sup>to eye</sup>, 31; ear, 52; meatus, 61; tip of ear, 81; occiput, 72; mid of outstretched hind leg, 390; ear notch more crown, 45; meatus, 25. Greatest breadth, 25; distance between eyes, 22; least girth, 140.

Distance across shoulders between tips of claws, 280; manus, 42; pes, 61; fore leg, 87; hind leg, 105; longest fore claws, 12; hind toes, 8.6. Tail squarish from sacrum after abutting 255. This Skunk had a large and well filled rectum as it was running about beneath the cottonwoods about sundown. When I pursued it, twice it presented its rear and flourished its beautiful bushy tail in a

flourishing manner, but failed to discharge its battery when shot.

4137

July 27<sup>th</sup> *Ardea herodias* ♀ ad. <sup>Young of year</sup>  
Length to end of toes, 1420; 1110; 1770. 475; cul., 133; nostril, 105; gape, 149; height of bill opposite nostril, 25; width at same place, 18; tip of bill to center of pupil of eye, 168; to occiput, 220; bare tibia, 95; tarsus, 171; mte., 120; cl., 16; inner toe & cl., 89; cl., 14; outer toe and claw, 98; cl., 12; hallux & cl., 63; cl., 20; girth of tibio tarsal joint, 67; at middle of bare part of tibia 38; at middle of tarsus, 32. Irides, orange yellow. Bare skin around face, <sup>bluish</sup>, <sup>elevated</sup> patch of greenish yellow toward base of bill and another above eye anteriorly. The bill is blackish at base of mandible shading to olive towards tip; mandible greenish-yellow laterally, deep orange yellow towards the junction of the two ramus. The latter color extending to extremity of mandible.

4138 *Ardea herodias* alba egretta ad.  
Length to end of toes, 1230; 946; 1420; 378; 145; culmen, 107; nostril, 99; gape, 184; height of bill opposite nostril, 22; width at same place, 155; tip of bill to center of pupil, 135; to occiput, 170; bare tibia, 116; tarsus, 150; mte., 116; claw, 16; inner toe and claw, 87; claw, 15; outer toe and claw, 95; claw, 12; hallux & claw, 63; claw, 21. Girth of tibio tarsal joint, 29; at middle of bare part of tibia, 29; at middle of tarsus, 27. Irides, silver, yellow; very handsome and brilliant. Bare skin around eye and on face anteriorly, greenish-yellow. Bill, orange-yellow tipped with black on terminal (20 mm) of dorsum of maxilla with black. Bare tibiae tarsi & feet, black. Claws plumbeous-black; the comb of middle claw, horn-color. The following specimens (Nos. 4139 to 4141) are all colored precisely like this one. Plumage all entirely pure white. None have dorsal plumage.

4139 *Ardea herodias* alba egretta ♂ ad.  
Length to end of toes, 1370; 1030; 1495; 393; 154; culmen, 115; nostril, 100; gape, 145; height of bill opposite base of nostril, 22; width at same place, 15; tip of bill to center of pupil, 143; to occiput, 190; bare tibia, 113; tarsus, 167; mte., 125; cl., 17.5; inner toe & cl., 95; cl., 17; outer toe & cl., 106; cl., 13; hallux & cl., 68; cl., 23. Girth of tibio tarsal joint, 58; tibia, 30; tarsus, 32. Colors as above.



4140 *Herodias alba egretta* ♂ (ad.)  
 Length to end of tarsus, 1400; 1030; 1530; 410; 160;  
 cul., 112; most l., 101; gape, 142; height above nostril, 22;  
 breadth at same place, 16; bare tib., 133; tarsus, 173; ante,  
 130; cl., 17; inner toe & cl., 96; cl., 16; outer toe & cl.,  
 112; cl., 13; hallux & cl., 73; cl., 23. Girth at tibio-tarsal  
 joint, 55; bare tib. 29; tars., 30.

4141 *Herodias alba egretta* ♀ (ad.)  
 Length to end of tarsus, 1160; 900; 1320; 368; 141;  
 cul., 100; most l., 91; gape, 132; height, 20; width, 14;  
 bare tib., 102; tars., 136; 108; 15; inner toe & cl., 82;  
 cl., 15; hallux & cl., 60; cl., 20; outer toe & cl., 94;  
 cl., 12. Girth at tibio-tarsal joint, 52; tib. 27; tars. 28.

4142 *Elanus laevis americana* ♀ juv.  
 417. 1130; 357; 165; cul. deep, 33; cere, 17;  
 cul., 21; gape, 48; tars., 79; ante, 57; cl., 21.  
 Eyes, black. Bill, including cere, flesh color,  
 tinged with plumbeous. Dorsum of tars pale  
 olive-grown; yellowish beneath; claws dusky-olive.  
 Stomach contained *Saguli* Finch and small rodents, hair, etc.

4143 *Aidea herodias* ♀ juv.  
 Length to end of tarsus, 1470; 1125; 1820; 490; 204;  
 cul., 132; width, 112; gape, 170; height above base of  
 nostril, 29; breadth at same, 20. Tip of bill to center  
 of pupil, 169; to occiput, 215; bare tibia, 120;  
 tars. 174; ante, 123; cl., 17; inner toe & cl., 93;  
 cl., 15; outer toe & cl., 103; cl., 13.5. Girth at tibio-tarsal  
 joint, 68; middle of bare foot of tib., 39; of middle  
 of tarsus 137. Irides, yellow.

Irides yellow. Bare skin around eyes & face green  
 blue, yellow above and in front. Maxilla  
 dusky olive-brown, mandible yellow; on gape  
 orange from junction of vomer to tip. Bare tibia  
 purplish fleshy brown, dusky in thin outer  
 aspect. Tibio-tarsal joint purplish-brown except  
 behind where it is yellowish, like the lower surface  
 of leg. Tarsi & dorsum of tars. black, tinged with  
 purple-brown. Claws, plumbeous black.

No. 28. *Sturnella turtur* ♂ ad. Desert Hill, 20 miles north  
 of Phoenix. May 15, 1885. Skinned once. No incision made.

4144 *Aidea herodias* ♀ juv.  
 Length to end of tarsus, 11400; 1080; 1750; 475; 175;  
 cul., 131; most l., 111; gape, 166; height of bill  
 25; breadth, 19; tip of bill to middle of  
 pupil, 105; occiput, 205; bare tib., 103;  
 tarsus 174; ante, 122; cl., 17. Inner toe & cl.,  
 92; cl., 15; outer toe & cl., 98; cl., 13.5. Hallux  
 and cl., 71; cl., 20. Girth at tibio-tarsal  
 joint 71; bare tib. centre, 32; tars., 34.

This is a young bird just well on wing. Body  
 small. Tibial feathers buffy white, with  
 pale fulvous centres, those of edge of wing and front  
 of neck but with darker, mixed of strongly  
 reddish on those parts as in the above. (No  
 4143) specimen which, although a bird of the  
 year is much older and more developed.  
 This bird is perfect, the feathers not yet grown.

Early this morning, Mr. Jordan came in to the  
 Post with news. He said he saw and told  
 me there were four "White Cranes" at the place  
 crossing, and that they were slowly moving  
 up towards the mill, where I might probably  
 intercept them and shoot one if I hurried.  
 I was a member of a General Court Martial  
 which was to meet in 45 minutes but as I  
 would run down and try for a shot anyway  
 and trust to luck to get back in time possibly  
 with a "Crane" for my trouble. At noon  
 a morning early, which led to the same station  
 minutes were some "Swans" on the river  
 opposite to the Post. I saw a great White Egret  
 just mounting, as I went out to the river and  
 my attempt to stalk it was unsuccessful and  
 four of the beautiful birds were before I  
 was quite within range, so I fired my gun,  
 and tried to pluck them, but the next time  
 they flew, they were out of sight at the  
 river, and I had not enough time to  
 follow them. After the court was over.

# Serpents of Arizona.

## Number.

1. Yellow-banded Water Snake. Fort Verde, A.T. May 22, 1884. Two of these large and beautiful snakes were found upon the hard sand beside the Verde River.
  2. Small Striped Water Snake. Fort Verde, A.T. May 22, 1884: This pretty serpent was found in a little pool of stagnant water left by the subsidence of the Verde River, where it was feasting upon the small tadpoles of the Verde frog ( ) which were abundant, and which were found in its throat in numbers. The snake was very active and vivacious when in the water, diving with perfect ease.
  - 3 & 4. Small Yellow-striped Water Snake. Whipple Barracks, Prescott, A.T. May , 1884. One of these specimens had swallowed a full-grown Tree-frog ( ) whose head and fore-legs protruded from its jaws. A number of these pretty snakes were seen in a clear rapid stream which empties into Granite Creek, at the Point of Rocks, near Prescott.
- Note. - Near Prescott, on May , 1884, I saw a large, thick Snake about  $4\frac{1}{2}$  feet long, which was broadly striped with yellowish, longitudinally, among some large piles of rocks near Granite Creek.
- Note. - On May , 1884, I killed two old Rattlesnakes ( ) in Peach Springs Canon, when riding up to the Springs from the Grand Canon of the Colorado. Rattles of one, nine in number preserved.

## Number

5. Large Smooth Grass Snake. Ft. Verde, A.T. May 23, 1884. The first of the species seen. Found in dry ground near the Verde River.

July 27<sup>th</sup> - Continued from p. 399

I returned "Loring" and rode down to the crossing, thence up the river, at the bend above Granite Creek, I came across a Phalarope (Lagopus lagopus) which was in a circle and mounted upon some tall grass. I approached it to shoot it, but it flew away. I was about 200 yds. and it flew in a series of little zig-zags. I followed it for some distance, but it was too fast for me. I saw a White Heron standing in water still farther up. I left the Phalarope and went toward it. It did not fly until I was within 100 yds. and then I saw two shots without killing it. It flew behind some willows and did not reappear, so I think I wounded it, but could not find it on my way. This was not a Great White Egret. It looked like a Worm-eating Warbler (Parula cucullata), a species which I have never seen. It was not pure white all over but marked with numerous. It was about the size of Florida cucullata or Taraxia cucullata. The Greater Yellow-bellied sold on July 22<sup>nd</sup> was also seen but not shot at. Had a nice dinner with the Verde, two great White Egrets (Herodias leucocorys) were standing on a sand bar. They just got up when they saw me. I followed a little way and found a number of Swarrows flew with their parents, but did not attempt to shoot any, as Swallow is scarce and I did not wish to disturb any of it on them. The flock of Great White Egrets was soon seen circling in the river, frequently alighting on the willows and Salicoides and willows, and soaring in every direction seen.





them, and Great White Egrets were seen. They were constantly rising from a dense cottonwood thicket and alighting immediately in some neighboring pool. At least they settled permanently for the night, but I suspect their plans by creeping underneath through the line of tall cottonwoods to the bottom of the very tree in which they sat. They flew out together. I fired a shot at once at two, but only killed one bird. The first disappeared in the dusky twilight before I had drawn my gun. The second was seen to alight in the sky near dark with clouds. It had been saving itself for the afternoon, but at sunset the mountains in the south were bathed in purple light and spanned by the widest and most brilliant rainbow that I ever remember to have seen.

It was in the dusk of twilight that I reached an isolated pool in the bed of the river where I had seen a Greater Yellow-legs (*Actonotus melanoleucus*) earlier in the day. It was very shy and had remained near the spot since July 22<sup>nd</sup> when I missed a shot at it. Now it arose and flew with its loud notes down the river and alighted on the margin of the river. I dismounted intending to shoot it, but an Owl flew past me with a dull scream. I recognized it at once as the Barn Owl (*Bubo flammeus americanus*). It flew over to the steep mud bank across the Verde, and went into a hole in the bluff. I went over and saw a singular group of these remarkable creatures sitting in holes along the bank. The old one flew screaming at me. I fired my last cartridge at it, but the duck failed to bring it down. It flew upon the bank and alighted, I suspect at

it was wounded and it was not long before several of them were seen rising, alighting and circling over my head. I fired my Cartridges loaded heavily with buckshot each, but not until I had fired the last shot at the audacious birds did one drop winged to the ground. It seemed tremendously heavy when I caught it. The next morning in serious business so I rode over to the mountains and alighted on the snags and trees and on the edge of the low bluff above the nest. One alighted upon the level sand-flat. I returned soon.

4 Great White Egrets (*Ardea alba Egretta*)  
 2 Great Blue Herons (*Ardea herodias*)  
 1 Wilson's Phalarope (*Steganopus tricolor*)  
 1 Barn Owl (*Bubo flammeus americanus*)  
 Total 8, which, with a General Post Marshal kept me skinning all the next day.


A Black Tern (*Sterna fuscata*) was seen flying down the Verde this morning. I went down to try a shot at the Egrets. It is the first I have seen since I shot one a pair on the Verde, about this time of last year.

July 24<sup>th</sup> Ft Verde, Arizona  
 To-day a night out to hunt for Great White Egrets, the Greater Yellow-legs, and to hunt for a Barn Owl. Steward Stossmeister saw a Great White Egret near the saw-mill yesterday. Mr. Jordan saw one at his dam on July 23<sup>rd</sup> for the first time, and it remained there several days. The first Kingfisher (*Ceryle alcyon*) was seen to-day on Beaver Creek. It was an adult ♀ and I shot it after a good deal of work. When I rode across to pick it up, as I jumped out of a projecting log, an animal flashed into the water. I thought it was a turtle at first and even after I saw it swimming until it got out into



Let clear water when I saw that it was a beautiful little stream which could be none other than the St. Domingo Lake (Tachibana's ex. inuwa, Linn.). Every morning it was clearly visible as it swam with great alertness and swiftness down the stream around a mass of projecting debris in which it had been hiding. I swam towards this point and in an instant was looking over a smooth expanse of water below but where could this little Spirit be seen, and an extended search up and down the stream, and beating the underbrush and drifted debris along the margin failed to discover its hiding place. A Great White Egret (*Herodias alba egretta*) was seen circling in the air at a considerable height and a Cooper's Hawk (*Accipiter cooperi*) was hunting quails.

I secured the solitary specimen of the Greater Yellow-legs (*Totanus melanoleucus*) at the same pool where last seen, and then visited the Cuckoo on the bank. The Great White Egret was twice flushed but was very shy and wary.

The Cuckoo's hole was smoothly dug  out, the top of the entrance arched but level below. It was placed where the water runs close to the perpendicular clay bank, the place being unapproachable from below on account of the dangerous quicksand early in the season, and equally impregnable from above. As I approached I made a loud & creeping noise, which immediately brought two of the most singular fisher-men and at the same time beautiful singers that I ever beheld to the front of the swam. One charged at me and killed one and seized the other, which flapped

out of the hole into the stream. They are very hard to kill. The young and old are about the same size but the old are larger beneath, and in fact, all over. The young are about 1/2 the size of the old. The burrow was neatly excavated, round and perfectly level upon the bottom, which was strewn with pellets of bones, hair, and feathers. There was four feet from the entrance and the enlarged room at the extremity was two feet more in height and width. Only the one - many dead bird was found within. I searched all the holes and crevices in the vicinity in hopes to find the rest of the birds, but saw none of them, and finally searched the bank and scattered mesquite above for dead or wounded ones. From the night's shooting, but none were found. I am confident that more than three were seen at once, and probably half a dozen.

It was so intensely hot that I returned to prevent my bird from spoiling although I wanted to hunt for the Egrets and the little Grebes, which would have been a great prize.

It was fortunate I did so for we had one of the heaviest showers I have seen at Verde soon after I reached home.

4145. *Totanus melanoleucus* f. ad. This has been seen at one place on the Verde River since July 22nd. Its left leg has been amputated or at least is missing 13 mm below the tibio-tarsal joint. Leg & foot, granitic-yellow, claws dusky. Bill, mandible greenish-black, the rest of mandible. Length to end of caudal, 440; 363; 135; 47; x 2;







dorsal surface is spotted from the nearly equal admixture of new and old feathers. The new feathers (remiges) of wing are the same on both sides - the 5 primaries succeeding the 3rd and 5 middle secondaries; contiguous. Had feasted on Quail, first plucked clean.

Today (July 30<sup>th</sup>) I rode across the Verde and up Beaver Creek to the large head in town. I saw the St. Domingo Oriole; but a thorough search proved unsuccessful. The bird probably swam to the Verde in the first instance. I hunted carefully up the stream, and saw a White-throated Swift (*Cypselus saxatilis*) and a male Lazuli Finch (*Spiza amoena*). The Swifts undoubtedly breed in the cliffs along the Verde, in small numbers; but in Fossil Creek, 20 miles S.W. of Verde, enormous colonies of them propagate. The Lazulis are scarce in the Verde bottom although a few may be found on careful search at any time.

Barn Owl (*Strix flammea arizonae*) visited the Owl's nest. A single fully-grown young was within. It lay down on its back and seemed to be dead, but I knew better than to attempt to seize it with my bare hands, so stood at 25 yards and fired into the hole killing my bird. It proved to be a ♀ (No. 4149) and young of the year.

The bottom of the cavity was covered with pellets containing bones of such small quadrupeds as *Thomomys talpoides umbrinus*, *Tamias merriami* and *Neotoma talbigula*, together with a quantity of hair and feathers of small birds.

Peregrine Falcon (*Falco peregrinus maerula*) After leaving the Owl I rode 500 yards up the Verde, and saw a Duck Hawk perched upon a dry pole of a cottonwood. That lay

prostrate near the edge of the River. I rode behind some trees, dismounted, crept to the nearest cover, and took a careful aim at long range. As I did so the bird stood up erect and began to cry, "cah, cah-cah-cah" when I fired and wounded it. Its flight was incredibly rapid. I could scarcely follow its course. I searched the sand and stony bed of the River for an hour before I saw the bird sitting in the shallow water near the further shore, in front of a high bank of clay. I circled around and dismounted near the edge of the bank. I crept stealthily out to the edge of the bank but no sooner caught sight of the bird than it saw me, and flew, but was disabled by my shot in the middle of the Verde. I waded in and secured my prize, the first in <sup>complete</sup> adult plumage that I have taken in Arizona.

*Phainopepla nitens* - Families of these birds are met with on the streams. They are living now for the most part, upon insects which they catch upon the wing. They are constantly circling out after them. The young are old and shy and hard to approach. An adult male that I shot was moulted and covered with pinfeathers.

The most characteristic birds along the streams are the Flycatchers (*Tyrannus vociferans* et *T. verticalis*, *Sayornis sayi* et *S. nigricans*, *Empidonax hammondi* and *Piriocephalus rubinus mexicanus* all of which breed in the Verde Valley in abundance which are constantly in view. Abbott's Towhee, Grasshopper Thrasher, Long-billed Cuckoo, Mockingbirds, Song Sparrows, Blue Grosbeaks, Western Yellow-throat, Black-throated Sparrows, Lark Finches, Killdeer, Spotted Sandpiper, Great Blue and Green Herons are other characteristic species.



*Streptopelia picta* probably breeds late or irregularly. I have failed to discover its nest.  
*Empidonax alpestris chrysolaema*. - Females of these birds, the adults in view, worn and hanging plumage and the adults in spotted dress resort at frequent intervals to the shore of the Verde for food and water.

Swallows: - The four species which breed in the Verde Valley (in order of abundance) *Petrochelidon lunifrons*, *Stelgidopteryx serripennis*, *Tachycineta thalassina*, and *Pterundo erythrogastra* are all abundant now.

In Strawberry Valley in the pine belt 30 miles east of here the Purple Martin (*Progne subis*) breeds abundantly, as it does about Tucson.

July 31<sup>st</sup> 1885.  
 Ft Verde, Arizona.  
 Mr. Jordan brought me a fine living male specimen of Van Damp-backed Sucker (*Ceotostomus dybowskyi*). I compared its colors with the description on page 393 and found that they were identical, except that the fins were somewhat rosy, and all the scales upon the sides silver tipped. There were 84 scales in lat. line and 25 in the transverse series between dorsal and ventral. The rows of papillae are irregular on both jaws - about 3 on upper lip, and ten in lower. The fins and parts of skin & scales were mounted on paper & preserved. The front of the skeleton & head were preserved to show the interneural bone, which gives the singular dorsal outline to this Sucker.

Aug. 1<sup>st</sup> 1885. Ft Verde, Ariz.  
 4151. *Myiarchus mexicanus cooperi* ♂ ad.  
 353; 360; 115; 108; cul. 28; most, 19.5; gape, 35; tarsus, 26.5; mte, 24; cl, 8. Irides, bright hazel. Bill, black; slight brownish at extreme base of mandible. Tarsus & feet, dusky. Plumbeous, claws, black.

4152. *Myiarchus mexicanus cooperi* ♀ ad.  
 240; 345; 106; 97; culmen, 28; most, 18.5; gape, 34.5; tarsus, 26; mte, 24; cl, 8. Color same as No. 4151 above.

4153. *Notamus melanoleucus* ♂ ad.  
 Length to end of leg, 447; 947; 189; 52; cul, 53; gape, 61; base to 44; tarsus 33; mte, 43; cl, 6. Irides, dark brown. Bill, immixt black & white shading to black. Bare skin, tarsi & feet, yellow; wings brownish-black.

4154. *Sitta carolinensis* ♀ ad. Irides, hazel.  
 145; 126; 73; 59; cul, 10; gape, 11.5; tarsus 11; mte 12; cl, 5. Irides, hazel. Bill, pale olive-brown; flesh, olive-brown; tarsi & feet, dusky; claws, brown.

4155. *Amraea carolinensis* ♂ ad. Irides, slightly hazel.  
 190; 294; 92; 73; cul, 17; gape, 18.5; tarsus, 21; mte, 22; cl, 7. Irides, hazel. Bill with mandible and maxilla buff, at tip, olive-brown; residue of maxilla, plumbeous-black. Tarsi & feet neutral tint, claws, brownish-black. This specimen and the following are in adult plumage, but I wear summer plumage. The colors of the soft parts may be taken as typical.

4156. *Amraea carolinensis* ♂ ad.  
 186; 297; 92; 76; cul 18; gape, 18 (both measurements taken compare above); tarsus 23; mte 24; cl 6. Colors of soft parts the same as above.

4157. *Acridotheres tristis* ♂ juv. (1<sup>st</sup> year!)  
 430; 753; 234; 208; cul, 28; gape, 34; tarsus, 10; cul, 16; gape, 26; tarsus, 62; mte, 53; cl, 14. Irides, pale greenish-yellow. Base of bill greenish-yellow. Tarsi & feet brown yellow; claws, blue-black. This specimen, hatched for me, I tried to give it to her, but preserved the rest of the lot.

4158. *Myiodytes cucullatus* ♀ ad. Irides, hazel.  
 450; 490; 115; 96; cul, 27; gape, 49; base tibia, 9.5; tarsus, 33; mte, 29; mte 58; cl, 7.5. Irides, brown. Bill, blackish; orange-yellow at base of mandible. Dorsum and venter

basium of feet & inner side of wing, dusky plumbeous, residual blackish. Mottled, feathers scanty. All of the primary & some secondary quills are missing on both wings. There are 8 rectrices on one side of tail & 3 on the other very much faded and worn like all of the old plumage. The measurements are all perfect for immatures save those of "wing" and "alar expanse". Shot on the Verde River. Notable cicaditide for night

*Coutopus richardsoni*. - First seen. Only one *Myiarchus cooperi* has a loud whistle sounding like "bob white".

1885.

August 12<sup>th</sup> to 14<sup>th</sup> Oak Creek, Arizona

*Empidonax*

4168 *Empidonax difficilis*. ad. Aug. 14<sup>th</sup>.  
146; 223; 70; 63; cul, 14; ~~gape~~ most, 9; gape, 16; tarsus, 17.5; mte, 15; cl, 6. Irides, hazel. Bill brownish-black above, yellowish flesh-color below; Tarsi feet and claws dusky-plumbeous.

4167 *Coutopus borealis* ad. Aug. 14<sup>th</sup>.  
195; 336; 109; 79; cul, 20; most, 14; gape, 25; tarsus, 16; mte, 18.5; cl, 7. Irides, hazel. Bill with maxilla brownish-black; mandible yellow, same near apex where it shades to brownish-black.

4169 ~~*Empidonax difficilis*~~ *Empidonax difficilis*. ♀ juv. Aug. 14<sup>th</sup>.  
<sup>6.73 11.76 3.82 2.60 5.5</sup>  
171; 299; 97; 66; cul, 14; gape, 15; tarsus, 23; mte, 23.5; cl, 6.5. Irides brown. Bill yellowish on basal half of mandible; residual, greenish-olive. Tarsi & feet greenish plumbeous; claws olive brown, whitish on edges and tip.

4163 *Hesperiphonia vespertina*. ♀ ad. Some disease of skin.  
202; 345; 112; 71; cul, 20; gape, 22; height 14.5; width at base, 14. Irides hazel. Entire bill bright yellowish green. Tarsi & feet, pale yellowish-brown; claws, brownish-black. ~~11.76~~ tarsus, 22; mte, 26; cl, 8.5. Aug. 14<sup>th</sup>.

4164 *Hesperiphonia vespertina* ♂ juv. Aug. 14<sup>th</sup>. Black on crown.  
196; 342; 115; 71; cul, 18.5; gape, 19.5; height 14; width, 14; tarsus, 21.5; mte, 26; cl, 8.5.

The bill feet and claws darker than above. The bill greenish-olive, yellowish-green only at extreme base. Tarsi feet & claws, brown.

4165 *Hesperiphonia vespertina* ♂ juv. Aug. 14<sup>th</sup>. No black on crown.  
199; 350; 114; 71; cul, 19.5; gape, 21.5; height, 14.5; width, 14.5; tarsus, 22; mte, 26.5; claw, 8. Colors like the one above but a little less dark.

4166 *Gamelodia melanocephala* ♂ ad. Aug. 14<sup>th</sup>.  
217; 335; 107; 90; culmen, 19.5; gape, 20.5; height at base, 13.5; width at base, 13; tarsus, 24; mte, 25; cl, 8. Irides, hazel. Bill brownish-black above, bluish, fleshy-olive below. Tarsi feet and claws, plumbeous, the latter dusky.

4160\* *Melanerpes formicivorus* ♂ ad. Shot by E. W. M.  
247; 460; 145; 94; cul, 24; gape, 29; tarsus, 21; mte, 27; cl, 10. August 13<sup>th</sup>.

4162 *Gamelodia melanocephala*. - juv. Aug. 13<sup>th</sup>.  
Young of the year.

4161 *Picus villosus harrisi* ♂ August 13<sup>th</sup>.  
247; 408; 127; 85; cul, 30; gape, 32; tarsus, 20.5; mte, 24; cl, 10. Irides, hazel. Bill, neutral tint. Tarsi feet and claws, plumbeous.

4159 *Hesperiphonia vespertina*. ♂ ad. August 13<sup>th</sup>.  
200; 340; 112; 70; cul, 20; gape, 22; height of bill at base, 15; width at base, 15; tarsus, 21; mte, 24.5; cl, 8. Irides, hazel. Bill, bright olive-green. Tarsi and feet, fleshy purplish-brown. Claws, dark brown.

The above specimens (Nos. 4159 to 4169) were all shot on Oak Creek, about 6 miles below Indian Garden. Mrs. Means, little Lillian and myself were a part of a party of eight, that went fishing to Oak Creek, accompanied by half a dozen enlisted men. We rode to the camp on Oak Creek where I encamped with Lieut. Carrington last winter. The ladies (5)



rode in the spring wagon the gentlemen on horseback. We went into camp about five o'clock. <sup>Distance 20 miles</sup> No Antelope, Deer or other large game was seen en route. The only birds of any interest were Shore Larks, Louisiana Tanager near Beaver Head, which was dry, and one old male Lark Bunting (*Calamospiza melanocorys*) in black plumage, about four miles this side of Beaver Head. Californian Woodpeckers and a *Contopus* (possibly *fortinax*; certainly not *C. borealis*) were flying about some dead trees on Oak Creek in the evening; and Woodhouse's Jays and Lazuli Buntings were numerous from the round needle-like peak of red sandstone to the ~~left~~ <sup>right</sup> of the road, all the way to camp. I caught a mass of "Bony-tails" in the evening, but the trout would not bite.

On the 13<sup>th</sup> a part of the party went up the stream a mile or two and fished all day. They only caught one fine trout and plenty of Bony-tails. Lieut. Eggleston shot a White-backed Skunk (*Conophos mapusito*). Capt. Baldwin spent the forenoon with the ladies and Tillam fishing and loitering about the Creek and camp. In the afternoon we went fishing and hunting down the stream about a mile or mile and a half. An immature Mexican Black Hawk (*Urochrochlamys anthracina*) was wounded, but escaped. Evening Grosbeak, Black-head Grosbeaks, Lazuli Finches, Olive-sided Flycatchers, <sup>Swainson's Flycatcher</sup>, Fairy and Californian Woodpeckers, Red-shafted Flickers, and Ospreys were seen, and a mass of Bony-tails caught.

On the 14<sup>th</sup> I walked up to the place where the Skunk was killed, but could not find it. Returning to camp, I shot three Evening and an old male Black-headed Grosbeak, and saw a number of Louisiana Tanagers. After breakfast, I rode across the Creek and found

an Olive-sided Flycatcher that I shot before breakfast, but could not cross the stream to pick up. It had lodged in a tall sycamore tree that cost me a tough climb.

I started out to kill snail (Tambel's) ahead of the rest of the party, I shot an Olive-sided Flycatcher and a Cowbird, that were of interest in the "nutmeg juniper" forest near the "needle butt", when riding up the bed of a dry stream in a wild and interesting locality. The following portion of the trip was without interest, except that ten Antelope were seen and a Soldier shot a Goosander (*Mergus americanus*) and a Soldier shot a Goosander (*Mergus americanus*) and wounded another supposed to be of the same species.

As the *Calamospiza* and *Mergus* were the only interesting species found on the trip away from Oak Creek, I will give a Catalogue of the Birds seen only on Oak Creek, which aside from the species mentioned already, is quite as interesting from the absence as the presence of certain species showing the difference in the Avifauna of Oak Creek and the Verde River.

Birds Seen on Oak Creek. (Aug. 12-14, 1885).

- ? *Merula migratoria propinqua*. - I thought I heard one once, but it may have been some other bird.
- Lophophanes inornatus*. - Abundant in small flocks.
- Sitta Carolinensis aculeata*. - Several.
- Geothlypis mexicanus conspersus*. - Several.
- Dendroica aestiva*. - Common. The only Warbler seen.
- Petrochelidon lunifrons*. - Common.
- Pyrranga ludoviciana*. - Common. Families together.
- Heeriphriza vespertina*. - On the morning of the 13<sup>th</sup>, just at sunrise, I heard a sharp call much resembling the Flickers both in quality and sharpness of utterance, and saw this bird flying quite high in the air, calling frequently. It alighted on the summit of a tall oak and continued calling.

until shot, when it came hurtling to the ground screaming fearfully, and bit viciously when I caught it. Its bill was olive-green. This was the first I have seen of this gorgeous Grosbeak since I first made its acquaintance in Copper Canon in the spring of 1884, when a single male was singing on some cedars on a mountain side, but could not be procured.

Later in the day other Grosbeaks were seen and heard and, on the morning of the 14th, I shot three in two <sup>evergreen</sup> oak-trees at the deserted rancho. They were a female parent and two young males of the season. The female uttered the same note as the male but with less <sup>force and</sup> emphasis. She refused to leave her young; but concealed herself so successfully that I was nearly about a quarter of an hour in detecting her in the foliage. When riding through a forest of Nutmeg Junipers on the way home, I again heard Evening Grosbeaks. ~~Molothrus ater obscurus~~ <sup>*L. australis*</sup> - A young female in first plumage was shot in the Nutmeg Juniper near Oak Creek. It is uncertain whether it is *L. australis* or *L. atrata*. The bill and tarsi are considerably larger than in adult males of either species, as given by Mr. Ridgway in his monograph of the genus; but I think it is *L. australis*. The altitude was only about 5000 feet; and it was doubtless hatched in the vicinity - probably in the neighboring cliffs of bright red sandstone.

*Astragalinus psaltria*. Common.

*Chondestes grammacus strigata*. A few about the deserted rancho.

*Pipilo maculatus megalonyx*. Only one seen.

*Zamelodia melanocephala*. - In families; quite numerous among the evergreen and scrub oaks as well as in the cedars and deciduous trees along Oak Creek. Their call note remind me of the Bluebird's.

*Passerina amoena*  
*Guiraca caerulea*. - I was much surprised to find this species abundant on Oak Creek, and frequenting the evergreens upon the hillsides quite so much as the deciduous trees (box elder, Alder, Cottonwood, walnut, sycamore, black ash and roble) along the creek.

*Sturnella neglecta*. - A few.

*Aphelocoma woodhousei*. - Abundant.

*Tyrannus vociferans*. - One.

*Sayornis nigricans*. - On the stream abundant.

*Contopus* (<sup>*highlandus*</sup> ~~*frontalis*~~). - One was seen on a tree on Oak Creek and another on the neighboring hillside among some cedars & pines.

*Contopus borealis*. Quite a number seen; sing.

The habitually perch on the tallest dead trees.

*Empidonax*

*Trochilus alexandri*. } Very abundant about evergreen

*Selasphorus rufus*. } oaks, especially females & young.

*Picus villosus harrisi*. - Common.

*Picus querulus scalaris*. -

*Melanerpes formicivorus bairdi*. - Abundant in flocks, collecting together like Red-heads.

*Colaptes auratus mexicanus*. - A few.

*Buteo borealis calurus*. }

*Trimmerulus sparverius*. } Several seen.

*Melospiza anthracina*. - An immature bird in brown plumage with much white on tail was wounded on the margin of oak creek, when it sat on a tree. It escaped although seen several times afterwards.

*Pandion haliaetus carolinensis*. - A nest was seen on a dry tree, and a family of birds were screaming loudly along Oak Creek below our camp.

*Ceryle alcyon*. - One seen; doubtless breeds on Oak Creek.

*Lophortyx gambeli*. - Abundant.

*Oenaidema carolinensis*. - Abundant.

*Meleagris gallopavo*. - A few tracks were seen in the mud along the creek; and



several roosting places were found. The Turkeys were neither seen nor heard.

Mammals seen:-

Tracks of the Black-footed Raccoon were numerous along Oak Creek; and Beaver signs were noticed. A White-backed Skunk (*Conopatus*) was shot in a shady place in the creek bottom by St. Eggleston. *Tamias dorsalis* and *Spermophilus grammurus* were abundant in the cliffs near Oak Creek. *Tamias harrisi* was abundant before reaching Oak Creek.

Fin *Culetopis* were seen, returning. Cotton-tail & Jack Rabbits were abundant everywhere.

August 17th Ft Verde, Arizona.

No. 229. *Tamias harrisi* ♂.

Total length, 353 Head and body, 135 Tail to end of vertebrae, 83; hairs, 106; tip of nose to eye, 17; ear, 34; meatus, 36; tip of ear, 43; occiput, 46; Distance between outstretched fore claws, 166 Length to end of outstretched hind leg, 232 Tail, greatest breadth, 46 Chest girth, 90 Belly girth, 110; ears, height above crown, 8 height above meatus, 12; greatest width, 13 Distance between eyes, 20; Manus, 22 Pes, 41 Fore leg, 48 Hind leg, 70 Longest fore claw, 6.5 Longest hind claw, 5.2.

No. 230 *Tamias harrisi* ♂.

Total length, 240 Head and body, 135 Tail to end of vertebrae, 75; of hairs, 100 Tip of nose to eye, 17; ear, 35; meatus, 36.5; tip of ear, 44 occiput, 46 Distance between outstretched fore claw, 163 Length to end of outstretched hind leg, 235 Tail, greatest width, 45 Chest girth, 95 Belly girth, 125 Ears, height above crown 8; above meatus, 19; greatest breadth 13 Distance between eyes, 21 Manus, 25 Pes, 42; Fore leg, 51 Hind leg, 70 Longest fore claw 7 Longest hind claw, 5.3

No. 231 *Tamias harrisi* ♂.

Total length, 255 Head and body, 135 Tail to end of vertebrae, 89; to end of hairs, 111 Tip of nose to eye, 17; ear, 34; meatus 35; tip of ear, 43 occiput, 44; Distance between outstretched fore claws, across shoulders, 166 Length to end of claw of outstretched hind leg, 237 Tail, greatest breadth, 48; Chest girth, 100 Belly girth, 115 Ears height above crown, 8; above meatus, 12 Distance between eyes, 21 Ears greatest breadth, 13. Manus, 24 Pes, 41 Fore leg, 49 Hind leg, 70 Longest fore claw 6.3 Longest hind claw, 6.

August 19th Fort Verde Arizona.

No. 232. *Fiber zibethicus* ♂ ad

Total length, 434 Head and body, 240 Tail to end of vertebrae, 171; to end of hairs, 185. greatest breadth, 14 breadth at same place 7 Tip of nose to eye, 28 centre of pupil, 31; ear, 49 meatus, 53 occiput, 61; tip of ear, 64. Distance between outstretched fore claws, 212 Length to end of outstretched hind claws 330. Chest girth, 180 Belly girth, 245 Ears, height above crown, 13 meatus, 17; greatest breadth 16 Distance between eyes, 24 Manus 28 Pes 62 Fore leg 67 Hind leg 102 Longest fore claw 9 Longest hind claw 10 Breadth fore foot 10 Breadth hind foot 20 greatest expanse hind foot 42 Claws, white banded with purplish-red

4170 *Salpinctes obsoletus*. ♂ juv. Young of year. 157X 237. Irides hazel. Bill purplish flesh-color on basal one-half of mandible, residue of bill blackish. Tarsi feet & claws blackish.

No. 233. *Vesperugo myotis yumanensis* (H. Allen) ♂ ad.

Total length, 77 Head and body, 39 Tail, 38 Fore arm, 33 Alar expanse, 228; Wing from carpal joint 55 Alar to 5th toe 2 Pes, 8.5 2nd longest claw, 2 Hind leg 22

1885

Lip of nose to eye, 7; ear, 9; meatus, 11; tip of ear  
 210 occiput, 15; distance between eyes 6  
 Ear, height above crown 12 above meatus 14  
 Greatest width, 7. Length of anterior membrane-  
 process ( ), 6.6.

August 22<sup>nd</sup> Ft Verde, A.T.

We have had very heavy and continuous rains.  
 The River is high and water settled in large  
 areas in depressions. The first <sup>Baird's</sup> ~~Sandpipers~~  
~~Sandpipers~~ (~~Polidna~~ <sup>Fringo</sup> ~~alpestris~~ <sup>bairdii</sup>) were  
 seen about one of these ponds at least half a  
 mile from the Verde, together with Killdeer.

August 23<sup>rd</sup> Ft. Verde, A.T.

Numbers of the Sandpipers and Killdeer, were  
 about the pool. The Sandpipers utter a harsh  
 note like the "English" Snipe.

August 24<sup>th</sup> Ft. Verde, A.T.

4171. Icterus cucullatus ♀ juv. Young in complete 1st plumage.  
 185; 255; 82; 79; cul, 15; gape, 19; tarsus, 21.5;  
 mte, 20.5; cl, 6. Irides, hazel. Bill, dusky, -olive  
 above; flesh-color below. Tarsi and feet light  
 blue (not gray); claws flesh, -olive. First not full plumage.

4172. Oxyechus vociferus ♂ ad.  
 558; 508; 165; 98; cul, 21.5; gape, 24; fore tibia,  
 17; tarsus, 37; mte 27; cl, 5.2.

4173. Buteo borealis calurus ♂ juv.  
 540; 1280; 393; 240; cul. + cere, 35; cere, 14.5;  
 cul. 25.5; gape, 45; tarsus, 85; mte 67; cl., 23  
 Irides, straw-color. Cere and base of bill along gape,  
 light greenish; bill, bluish-gray on <sup>greater part of</sup> mandible and  
 extreme base of maxilla; residue of bill, plumbeous-black.  
 Tarsi and feet, pale greenish-yellow. Claws, blue-black.  
 Was eating a Cotton-tail (Lepus sylvaticus arizonae)  
 when shot. Had frequented the same spot  
 on the bank of the Verde for some time, and  
 was always alone. A trace of red on tail.

1885

platycercus.

4174

600; 1370;

Stomach contained remains of gophers

August 27<sup>th</sup> Ft Verde, A.T.

4174. Icterus naevius notabilis ♂ ad. Bear Creek.  
 161; 255; 83; 62; cul, 15; mte, 11; gape, 18.5;  
 tarsus, 19; mte, 18; cere, 4.5. Irides, hazel.  
 Bill with maxilla and tip of mandible, dusky brown;  
 residue of mandible, flesh-color. Tarsi and feet, brownish.  
 Flesh-color; claws, dusky. Tail and in good plumage.

4178. Buteo borealis calurus ♂ juv.  
 570; 1290; 410; 270; cul. + cere, 34;  
 cere, 15; cul, 23.5; gape, 42; tarsus, 87;  
 mte, 64; cl, 23. Irides, same as 4173.  
 Irides, yellowish-brown. Stomach empty.  
 To-day, J. Smith gave a little  
 in honor of Miss Trest, at the  
 mouth of the Cañon of Clear Creek.  
 I hunted a mile up the Cañon and



and a pair of *Helis concolor* (Linn.) (Harris) and contained a quantity of its excrement. Returning to our camp a flock of 300 (common) Geese saw, and a *Water Thrush* (Harris), the first I have seen in Arizona, was shot.

August 28<sup>th</sup>. Ft. Verde, A. T.  
4179 *Phalaropus nuttalli*. ♀ ad.

205; 435; 146; 88; cul., 8.5; nost., 6.5; gape, 31; tarsus, 18.5; nte, 22; Cl., 4.5. Irides hazel. Bill + claws, blackish; tarsus, plumbeous; feet plumbeous above, flesh-color below. Shot in a rocky Canon.

4180. *Lobonotus solitarius* ♀ ad.

Length to end of toes, 462; 211; 405; 136; 56; culmen, 27; gape, 31.5; bare tibia, 22; tarsus, 32; nte, 27.5; claw, 4.5. Irides, brown. Bill plumbeous black. Bare tibiae, tarsi + feet, green; claws, blackish.

No. 234. *Tamias harrisi*. ♀ ad.

Total length, 250; Head and body, 149; Tip of nose to middle of pupil, 22; ear, 35; meatus, 35; tip of ear, 43; occiput, 45; end of outstretched hind foot, 222; Ears, height above crown, 6; above meatus, 12; greatest width, 12; Tail to end of hairs, 80; to end hairs, 101; Manus, 23; Pes, 39; Fore leg, 48; Hind leg, 67; Longest fore claw, 6; Longest hind, 5.5; Distance between tips of fore claws extended, 163; Distance between eyes, 24; Chest girth, 85; Greatest breadth of tail, 52; Belly girth, 110.

No. 235. *Tamias harrisi* ♀ ad.

Total length, 250; Tail to end of hairs, 100; to end of vertebrae, 76; Head + body, 150; Tip of nose to eye, 17.5; middle of pupil, 22; ear, 34; Meatus, 35; Tip of ear, 42; Occiput, 44; end of outstretched hind foot, 235; Ears height above crown, 6.6; above meatus, 11; greatest width, 11; Manus, 23; Pes, 38; Fore leg, 48; Hind leg, 65; Longest fore claw, 7

Longest hind claw, 6 Distance between tips of fore claws outstretched, 160 Between eyes, 24 Chest girth 90 Belly girth 115 Tail width, 50.

August 29<sup>th</sup> Ft. Verde, A. T.

*Ceryle alcyon* L. - One on the Verde River.

*Gallinula chloropus floridana*. - One on Beaver

4181. *Tringa bairdi* ♀ ad. Baird's Sandpiper.

Length to end of claws, 195; 181; 380; 122; 56; culmen, 24; gape, 24; bare tibia 16; tarsus 23; nte, 22; Cl., 5.

4182. *Tringa bairdi* ♂ ad. Baird's Sandpiper.

Length to end of toes, 197; 181; 378; 128; 54; cul., 21; gape, 22; bare tibia, 14; tarsus, 23; nte, 21; claw, 5. Irides dark hazel. Bill, legs feet and claws blackish.

4183. *Tringa minutilla* ♂ ad. Least Sandpiper.

Length to end of toes, 160; 143; 279; 88; 45; culmen, 16; gape, 16; bare tibia, 7; tarsus, 18.4; nte, 19.5; claw, 3.5. Irides hazel. Bill + claws, black. Legs + feet, greenish-olive.

4184. *Tringa minutilla* ♀ ad. Least Sandpiper.

Length to end of toes, 175; 150; 286; 91; 42; culmen, 19; gape, 18.5; bare tibia, 13; tarsus, 19.5; nte, 20.5; claw 4. Colors of parts like No. 4183.

4185. *Tringa minutilla* ♂ ad. Least Sandpiper.

Length to end of toes, 172; 149; 285; 90; 41; culmen, 17; gape, 17; bare tibia 12.5; tarsus 19; nte, 20; claw, 4. Colors like No. 4183.

4186. *Tringoides montanus*. ♀ juv. Nick still down.

August 30<sup>th</sup>, 1885. Fort Verde, Arizona

No. 236. *Taxidea americana berlandieri* ♀ ad.

This specimen was caught away from its burrow. Its gait was slow and awkward as a Skunk. It was easily overtaken and held at bay while an other man on horseback hunted a club and brained it. Total length, 695. Head and body, 530;

Tail from root to end of hairs, 165; to end of vertebrae, 120.  
 Tip of nose to eye, 57; to center of pupil, 163; to ear, 180; to meatus, 112; to tip of ear, 153. Length of ear, 160; to end of outstretched hind leg, 705. Ear, height above crown, 127; above meatus, 155; greatest breadth, 47; Distance between eyes, 39; Chest girth, 340; Distance between outstretched fore claws, 570; Distance between outstretched hind claws, 517. Manus, 102. Pes, 104. Fore leg, 189. Hind leg, 155. Broadest part of foot, 48. Breadth of hind foot, 42. Length of 1st fore claw (minor), 128; 2nd, 32; 3rd, 33; 4th, 31; 5th, 28. Length of 1st hind claw (minor), 12; 2nd, 14; 3rd, 16; 4th, 19; 5th, 14.5. Distance from angle of mouth to front of incisor teeth, 37. Width of muzzle, 22. Belly girth, 445. Neck girth, 295; Distance between angles of mouth, 42 mm. Irides, grayish-brown. Muzzle, black. Feet pads dusky, the folds between the pads flesh-color. Claws, horn color. Feet & lower part of legs, two broad bands on top of head, involving the eyes, a large triangular patch in front of the ear, dorsum of ear, a part of extremity of lower jaw, and a small patch between ramus of jaw, black. A white stripe extending from the muzzle to the root of the tail, through the middle of the back, broadest on head, measuring 25 m.m. in breadth on crown, the stripe is twice slightly interrupted on rump - residue of dorsum yellowish gray, grizzled with gray and black. Flanks, axillae, inner side of thighs & inner surface of tail, brownish yellow. A white central band beneath fading into yellow laterally; broadest across center of abdomen, where it measures 100 m.m. narrowing in front to a narrow stripe between the arms & blending on the under surface of the neck with the pale yellow of that region, but becoming distinct between the ramus of the lower jaw anterior to the black spot before mentioned. The sides of the head are mixed black, white, brownish yellow together with an admixture of gray on sides of crown. These markings are distributed as follows; the

black dorsal stripes of head above referred to, begin at the muzzle extend <sup>backward</sup> ~~posteriorly~~ only widening and gradually blending with the grizzled gray, black & yellow pelage of the dorsum. This stripe widens laterally & surrounds the eye and joins a large triangular black patch situated anterior to the ear its apex extending nearly to the angle of the mouth, its base perfectly straight, its anterior border joined to the black lateral sides in the center through the eye and separated from the lateral stripe by two triangular areas of pale brownish yellow, one behind the eye, the apex of the other posterior to the eye, its base corresponding to the line of the upper lip, but extending beyond the angle of the mouth. The pale yellow of neck extends upward to the level of the upper border of the ears, becoming nearly white behind the ear, the inner surface of ear is white, except behind where a patch of the black of the dorsal surface invades it. The upper thirds of the legs are yellow, a few hairs tipped with white, the color gradually becoming glossy black, this color first invading the tips of the hairs and gradually becoming black throughout. The extremity of the tail is blackish but the hairs slightly tipped with gray. The hairs of the dorsum are lustrous yellow for their basal two thirds, then banded with black and pointed with gray. The chin is a mixture of blackish & white hairs, the former prevailing behind, and extending backward forming two stripes corresponding to the ramus of the jaw & fading to yellowish behind.

4187. *Butorides nrescens* ♂ ad.

Length to end of claws, 630. 510; 740. 203; 80; cul., 62; gape, 83; breadth, 24; tarsus, 54; met., 38; claw, 10.

4188. *Lynx rufus maculatus* ♂ juv. Skin and skull.



24 Captured in Birds Caught  
On the way to San Carlos Indian Agency  
with General George Crook in October 1887

- 3361 *Lophortyx montezumae* ♀ juv.  
3362 " " ♂ juv.  
3363 " " ♂ juv.  
3364 *Agelaius torquatus* ♂ ad. No measurements.  
3365 *Esalon columbarius* ♀ juv.  
3366 *Accipiter fuscus* ♀ juv.  
3367 *Spizella socialis* ♂ ad.  
3368 *Ardea herodias*  
3369 *Agelaius torquatus* ad.  
3370 " " "  
3371 *Picus villosus harrisi* ♂ ad.  
3372 *Junco oreganus* ♂ ad.  
3373 *Columba fasciata* ad.  
3374 *Picicorvus columbianus* ♂ ad.  
3375 *Geothlypis trichas* ♂ ad.  
3376 *Darius montanus* ♀ ad.  
3377 *Sphyrapicus tyroideus* ♂ ad.  
3378 *Buteo borealis calurus* ♀ ad.  
3379 *Sphyrapicus varius nuchalis* ♂ juv.  
3380 *Sitta pygmaea* ad.  
3381 *Cyanocitta stelleri macrolopha* ♀ ad.  
3382 " " " ♂ ad.  
3383 *Picus pubescens gairdneri* ♂ ad.  
3384 *Corpodacus cassinii* ♂ ad.  
3385 " " ♀ ad.  
3386 *Zonotrichia leucophrys* ♂ ad.  
3387 *Sphyrapicus varius nuchalis* ♂ ad.  
3388 *Aphelocoma sordida arizonae* ♀ ad.  
3389 " " " ♂ ad.  
3390 *Agelaius torquatus* ♂ ad.  
3391 " " "  
3392 *Columba fasciata* ♂ ad.  
3393 *Aphelocoma sordida arizonae* ♂ ad.  
3394 *Pyroanga ludoviciana* ♂ juv.  
3395 *Agelaius torquatus* ♂ ad.  
3396 " " ♀ ad.

- 3397 *Agelaius torquatus* ♂ ad.  
3398 *Empidonax* ♀ ad.  
3399 *Melanerpes formicivorus* ♀ ad.  
3400 *Agelaius torquatus* ♂ ad. No measurements.  
3401 *Agelaius torquatus* ♂ ad.  
3402 *Butorides ornatus* ♀  
3403 " " ♀  
3404 " " ♀  
3405 " " ♀  
3406 *Sphyrapicus varius nuchalis* ♂ ad.  
3407 *Gymnocitta cyanocapilla* ♂ ad.  
3408 " " ♀ ad.  
3409 *Aphelocoma urophasianus* ♀ ad.  
3410 " " ♂ ad.  
3411 *Junco oreganus* ♂ ad.  
3412 *Geothlypis trichas mexicana* ♂ ad.  
3413 *Junco oreganus* ♀ ad.  
3414 *Geothlypis trichas* ♂ juv.  
3415 *Geothlypis urophasianus* ♀ ad.  
3416 *Zonotrichia leucophrys* ♂ juv.  
3417 *Passerculus sandwichensis alaudinus* ♂ ad.  
3418 *Geothlypis urophasianus* ♀ ad.  
3419 " " ♂ ad.  
3420 " " ♂ ad.  
3421 " " ♂ ad.  
3422 *Sphyrapicus varius nuchalis* ♂ juv.  
3423 *Geothlypis macularius* ♀ juv.  
3424 *Junco oreganus* ♂ ad.  
3425 *Junco oreganus* ♀ ad.  
3426 *Ardea herodias* ♀ ad.  
3427 *Myiarchus cinerascens leucogaster* ♀ ad.  
3428 *Cardinalis virginianus phoeniceus* ♂ ad.  
3429 *Geothlypis urophasianus* ♂ ad.  
3430 " " ♀ ad.  
3431 " " ♀ ad.  
3432 *Pipilo aberti* ♀ ad.  
3433 *Geothlypis trichas occidentalis* ♂ juv.  
3434 *Butorides virescens* ♂ juv.  
3435 *Circus hudsonius* ♂ juv.

- 13436 *Trinectes sparsus* ♀ juv.  
 13437 *Phainopepla nitens* ♂ ad.  
 13438 *Sialia obsoleta* ♀ ad.  
 13439 *Calamospiza melanocorys* ♂ ad.  
 13440 " " ♂ ad.  
 13441 " " ♂ ad.  
 13442 *Cardinalis virginianus* ♂ ad.  
 13443 *Agelaius torquatus* ♂ ad.  
 13444 " " ♂ juv.  
 13445 *Centurus uropygialis* ♂ ad.  
 13446 " " ♂ ad.  
 13447 " " ♂ ad.  
 13448 *Accipiter fuscus* ♀ juv.  
 13449 *Campylorhynchus brunneicapillus* ♂ ad.  
 13450 " " ♀ ad.  
 13451 " " ♀ ad.  
 13452 *Thryomanes bewickii leucogaster* ♀ ad.  
 13453 *Poicteptis plumbea* ♂ juv.  
 13454 *Centurus uropygialis* ♂ ad.  
 13455 *Oxycephalus rubinus mexicanus* ♂ ad.  
 13456 *Centurus uropygialis* ♀ ad.  
 13457 *Phainopepla nitens* ♂ ad.  
 13458 *Agelaius torquatus* juv.  
 13459 *Centurus uropygialis* ♀ ad.  
 13460 " " ♂ ad.  
 13461 *Calamospiza melanocorys* ♂ ad.  
 13462 *Accipiter cooperii* ♂ ad. juv.  
 13463 *Leinurus mexicanus* ♀ ad.  
 13464 *Megascops Townsendi* ♂ ad.  
 13465 *Oreoscoptes montanus* ♀ ad.  
 13466 " " ♂ ad.  
 13467 *Melanospes formicivorus* ad.  
 13468 " " ♀ ad.  
 13469 *Agelaius torquatus* ♂ ad.  
 13470 " " ♂ ad.  
 13  
 13  
 13



1 metre = 39.368 Am. inches.

1 metre (= 1000 m m.) = 39.368 inches.

1 metre (= 1000 m m.)  $\div$  39.368 inches = 25.4 000 + m m.

Therefore 1 inch = 25.4 m m.

.01 of an inch = .254 m m.

Therefore to reduce inches and hundredths to milli-metres,  
multiply by 25.4 and the result will be practically correct.

Thus 1.75 (in)  $\times$  25.4 (m m.) = 44.45 m m.



